ENGINEERING ISSUE: PUTTING NEW LIFE INTO OLD BRIDGES

February 12, 1968

RAILWAY AGE

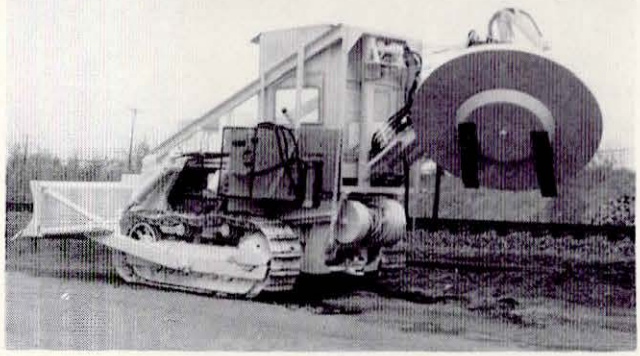
THE TRANSPORTATION WEEKLY

McCARTNEY LIBRARY
GENEVA COLLEGE
FEB 12

WEED CONTROL

Railroads are spending $30 million a year to wage war on weeds. A Railway Age survey evaluates progress and practices.

RD68 1116
GENEVA COLLEGE
MCCARTNEY LIBRARY
BEAVER FALLS PA
15010



RMC Dozer-Mounted Brush Cutter allows one operator to do both dozing and brush cutting functions.

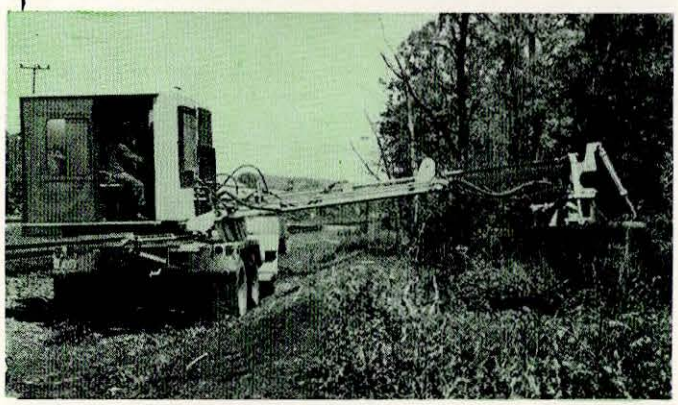
DENSE BRUSH

CLEAR A 50′ SWATH

RMC BRUSH CUTTER

Disposal problem is eliminated since brush is *shredded* in an area 25′ from the center line on both sides. Speed: up to 4 mph. Even trees do not stop the Brush Cutter—a 6″ diameter tree is cut in 6 seconds. ■ Machine also available with Typhoon Snow Blower attachment.

Cost and performance data and specifications are in Data Sheet BC-301. Let us send your copy.



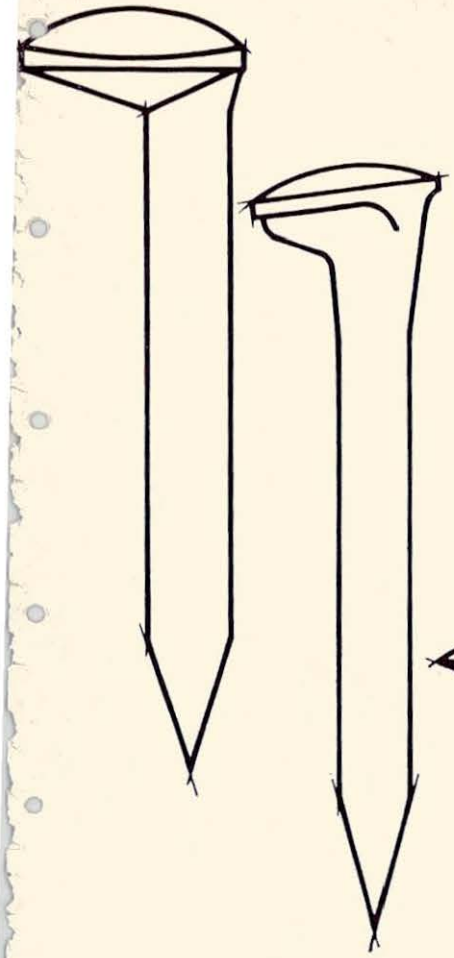
Truck-Mounted Brush Cutter is mounted on a 12-ton "FWD" Carrier. Cutting head boom can be raised and extended for trimming branches.

RAILWAY MAINTENANCE CORPORATION

MEMBER RPI RAILWAY PROGRESS INSTITUTE

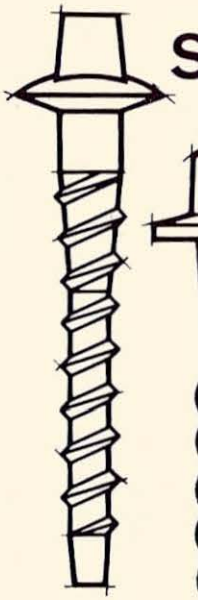
BOX 1888
PITTSBURGH, PA. 15230

Circle 21 on reader service coupon

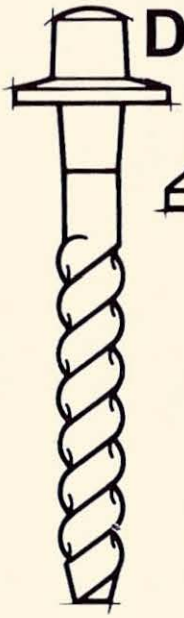


EVERYBODY KNOWS WE GIVE FAST SERVICE ON TRACK SPIKES.

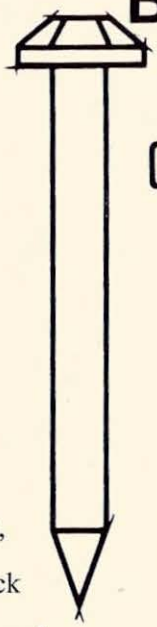
WE ALSO HUSTLE WHENEVER YOU NEED...



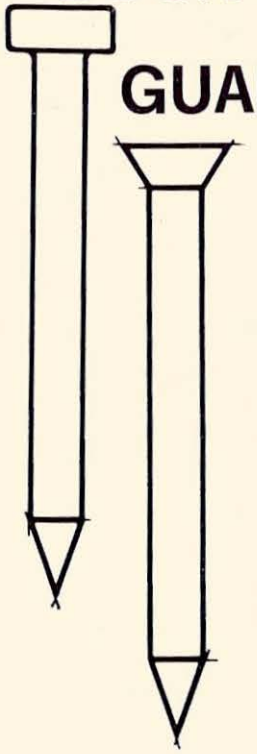
SCREW SPIKES



DRIVE SPIKES



BOAT SPIKES



DOCK SPIKES

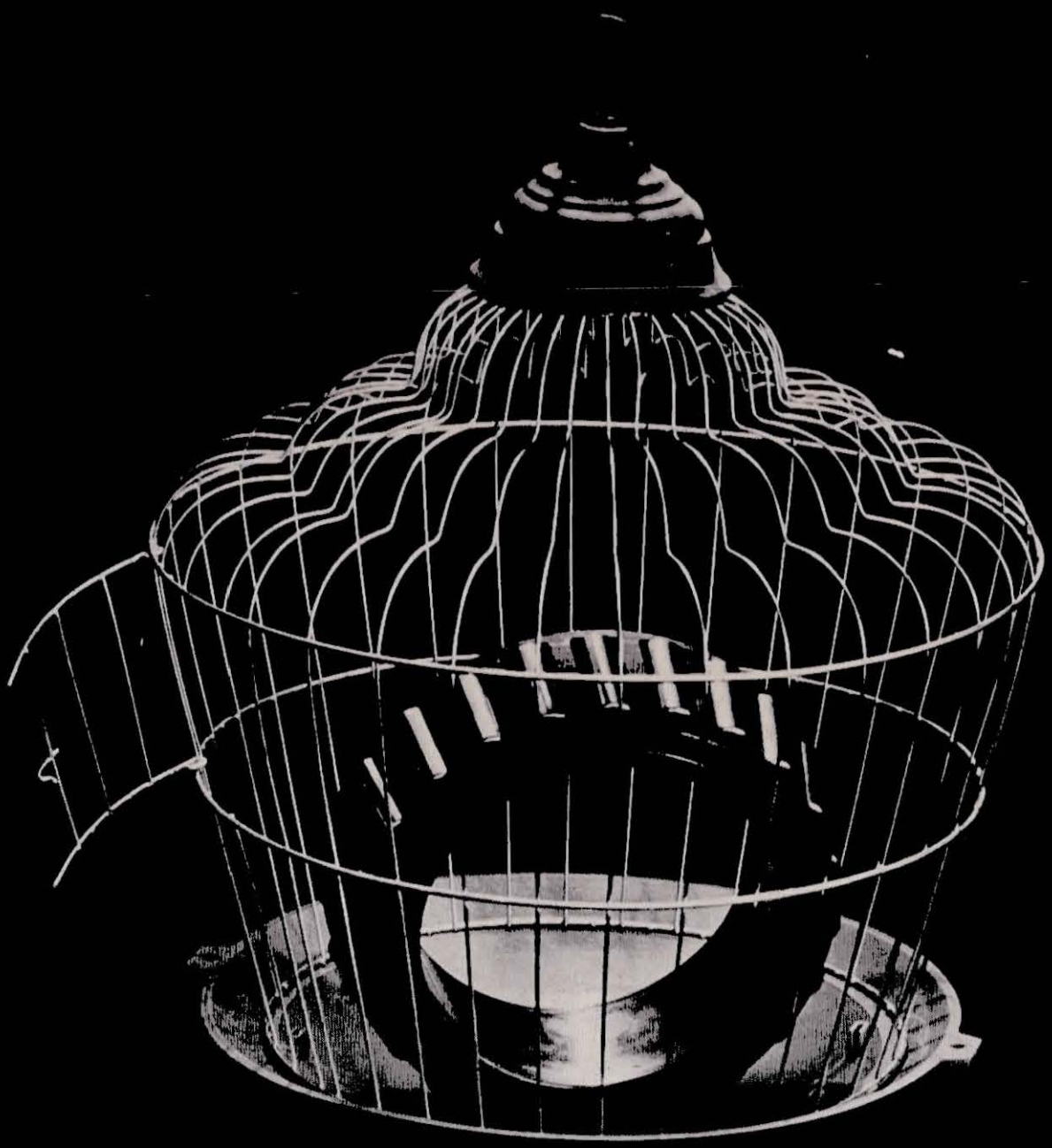
GUARD SPIKES

. . . or just about any other type of fastener required for trackwork, structures, maintenance equipment, or rolling stock: track bolts, switch bolts, bolts for frogs, crossings, and insulated joints, high-strength structural bolts, rivets, anchor bolts, brake pins, side frame keys . . . you name it. Our nearest sales office is at your service.

Bethlehem Steel Corporation, Bethlehem, Pa.

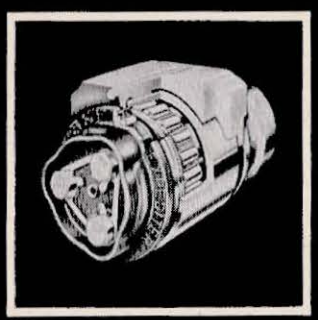
BETHLEHEM STEEL

BETHLEHEM STEEL



Still inspecting tapers through the cage?

Take a close look with SKF cylindricals.



With SKF® "Expediter"® cylindrical roller bearings, inspection is simple. Just remove the seals and snap rings, and the entire bearing can be disassembled. Then have a good look at every part. Renew only those parts that need replacement. What's more, bearing life is 20% longer. And the problem of adjusting lateral tolerances is completely eliminated. Ask your Abex representative. Or write for our "Expediter" booklet to:

Abex CORPORATION

Railroad Products Division

530 FIFTH AVENUE, NEW YORK, N.Y. 10036

6750

®A REGISTERED U.S. TRADEMARK OF SKF INDUSTRIES, INC.

"G" DESIGN "EXPEDITER" SALES AND SERVICE BY ABEX CORPORATION.

RAILWAY AGE February 12, 1968 • Vol. 164, No. 6

THIS WEEK

16 Modern methods help win the anti-weed battle
Important factors are more and better machines and herbicides.

20 Santa Fe cuts costs by rejuvenating old bridges
The secret is in-place treatment with a timber preservative.

26 Is labor-management peace possible?
Yes—if both sides face up to their responsibilities.

29 "Trains" of trailers on Interstate Highways?
That could be the effect of legislation pending in Congress.

44 Viewpoint: Weed control is cheap at the price
Adequate control programs pay big dividends in many ways.

DEPARTMENTS

19	As the Editor Sees It	31	People in the News
35	Dividends Declared	37	Railway Market
37	Freight Carloadings	7	Short and Significant
35	Letters from Readers	36	Supply Trade
12	Lines on Labor	44	Viewpoint
8	Monday Morning Report	34	Watching Washington
37	New Equipment	11	Week at a Glance
30	New Products Report	40	You Ought to Know

. . . AND COMING NEXT WEEK

Making freight move faster has always been a major goal of the nation's railroads. One expediting technique being used more and more, motive-power pooling, will be described in the Feb. 19 Railway Age. Motive-power pooling permits running locomotives in tandem over a full inter-road route and around congested terminals. The avoiding of terminal delays that is permitted by power pooling is the main benefit cited by officers of participating railroads. And more such pooling is on the way.

Editorial and Executive Offices
New York, N.Y. 10007, 30 Church St.
ROBERT G. LEWIS: Publisher
LUTHER S. MILLER: Editor
FRED C. MILES: Executive Editor
Managing Editor: Edward F. Donlon
Transit Editor: Joseph Asher
Mechanical:
C. L. Combes F. N. Houser
Art Director: Joel Petrower
Art Editor: Maurice H. Mates
Art Assistant: Thomas J. Pendergast
Editorial Assistant: June Meyer
Director of Research: H. B. Bolander
Librarian: Edith C. Stone
Production Manager: Fred B. Hecht
Manager—Contract Department:
Constance Nicolai

Editorial and Executive Offices
Chicago, Ill. 60604, 14 E. Jackson Blvd.
C. JAMES FISHER: Vice President—Sales
GUS WELTY: Senior Editor
Western Editor: Frank Malone
Mechanical: Robert D. Bartley
Engineering:
M. H. Dick R. E. Dove
Signaling & Communications:
Robert W. McKnight E. L. Abbott
Editorial Assistant: Wanda Brown

Washington, D.C. 20004, National Press Bldg.
Washington Editor: Walter J. Taft

London, W.C. 2, England, 4, Talbot House; 98 St. Martin's Lane
International Editors:
Geoffrey Wilson John Levett

Contributing Editors:
Norman E. Gillespie
3205 Chelsea
Orlando, Florida 32803

Charles Layng
115 West Gore St.
Orlando, Florida 32806

E. L. Woodward
576 Chattanooga Ave.
Pacific Palisades, Calif. 90272

GEORGE DUSENBURY: Editorial Director

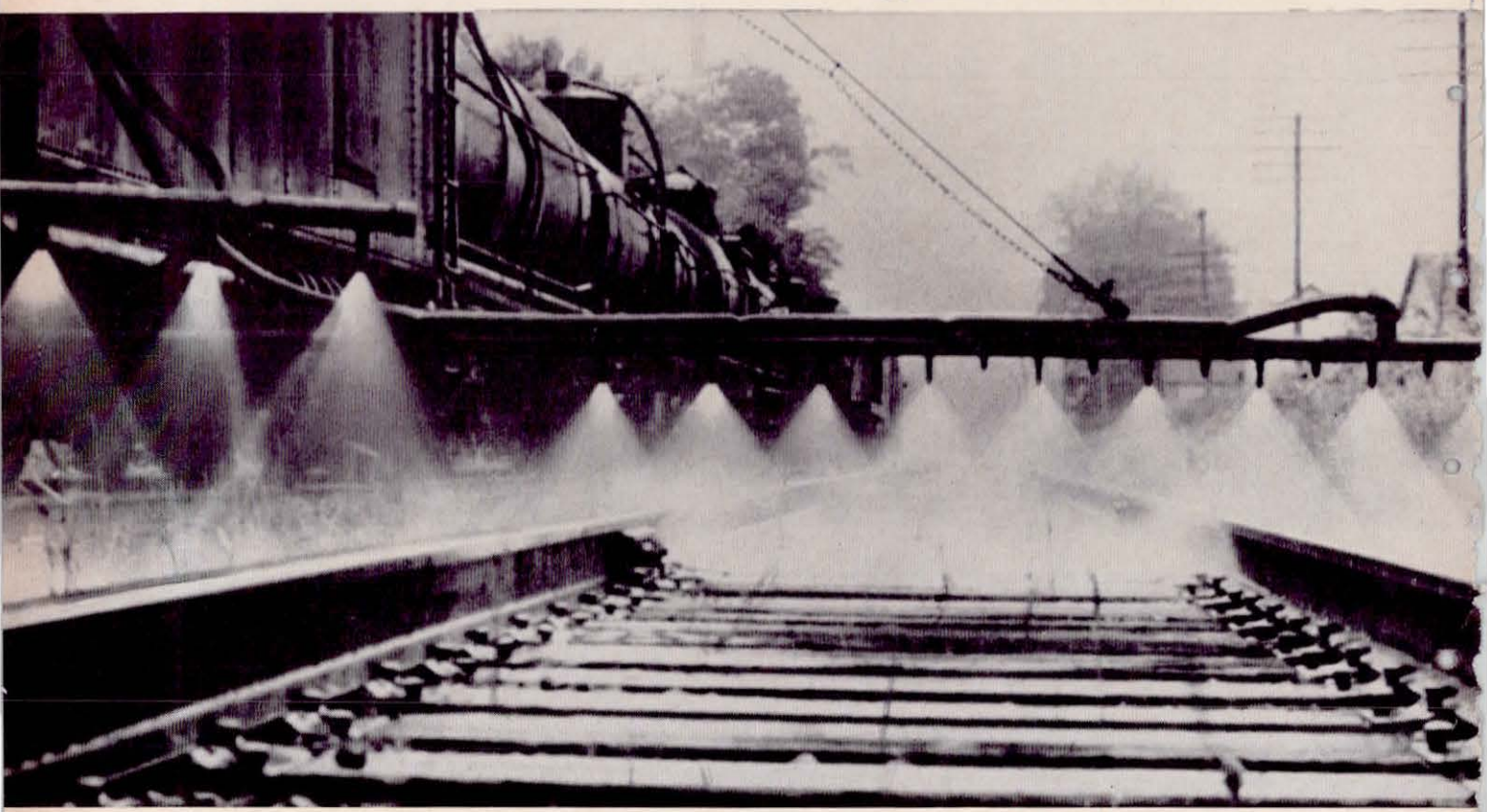
FOR LIST OF SALES OFFICES SEE INDEX PAGE

Railway Age, established in 1856, is indexed by the Business Periodicals Index, the Engineering Index Service and the Public Affairs Information Service. Name registered in U.S. Patent Office and Trade Mark Office in Canada.
Published weekly (except for four issues combining two-in-one) by the Simmons-Boardman Publishing Corporation at 440 Boston Post Road, Orange, Conn.
Railroad employees' subscription rate. U. S. possessions, Canada and Mexico, $6 one year, $9 two years, all others $15 for one year, payable in advance and postage paid. To railroad employees elsewhere in the western hemisphere, $10 a year. In other countries, $15 a year. Single copies, 60¢ except special issues. Address all subscriptions, changes of address and correspondence concerning them to Subscription Dept., Railway Age, Emmett St., Bristol, Conn. 06010.
Change of address should reach us three weeks in advance of next issue date. Send old address with new, enclosing, if possible, your address label. Post Office will not forward copies unless you provide extra postage.

Circulation Dept.: John Rogers, Director of Circulation, 30 Church St., New York, N.Y. 10007. POSTMASTER—SEND FORM 3579 TO EMMETT ST., BRISTOL, CONN. 06010.
Printed at the Wilson H. Lee Co., Orange, Conn. 06477. Second-class postage paid at Orange, Conn. and at additional mailing offices.

The problem: costly vegetation

The solution: a systematic, low-cost program of weed and grass control



Stop weeds from closing in on tracks by spraying Hyvar® X bromacil weed killer or weed killer combinations containing bromacil.

Your valuable investment in high-cost track areas deserves the protection of the best program for controlling unwanted vegetation. That means a systematic, economical program of chemical control which combines the right herbicides with expert technical assistance for the best possible results.

The first step in making your maintenance dollars more productive is to have your vegetation problems analyzed by a Du Pont weed and brush control specialist. He can offer you the right solution to your particular problem and help you to develop a program that pays for itself.

Then base your program on proven products. Du Pont "Hyvar" X or "Hyvar" X-WS bromacil weed killers (or products containing bromacil) provide such a base. They offer effective, low-cost broad spectrum control. "Hyvar" X is a wettable powder, while "Hyvar" X-WS is a water-soluble powder—once stirred into solution, it requires no further mixing or agitation. Both herbicides are especially effective on tough-to-kill perennial weeds and grasses, and on many difficult-to-control broadleaf species.

To control brush along your rights-of-way, spray Du Pont Ammate® weed and brush killer solution. "Ammate" is non-volatile, so you can spray it next to vapor-sensitive crops without injuring them, when used as directed.

Circle 6 on reader service coupon

For technical assistance in setting up the most effective systematic weed and brush control program, contact the Du Pont specialist nearest you.

With any chemical, follow labeling instructions and warnings carefully.

WESTERN AREA
F. A. Holmes
701 Welch Road
Palo Alto, Calif.
(415) 326-6044

MIDWEST AREA
L. E. Cowart &
C. B. Harris, Jr.
40-47th Street
Western Springs, Ill.
(174) 222-5151

SOUTHWEST AREA
T. J. Hernandez
4215 Richmond Ave.
Houston, Texas
(713) 666-0251

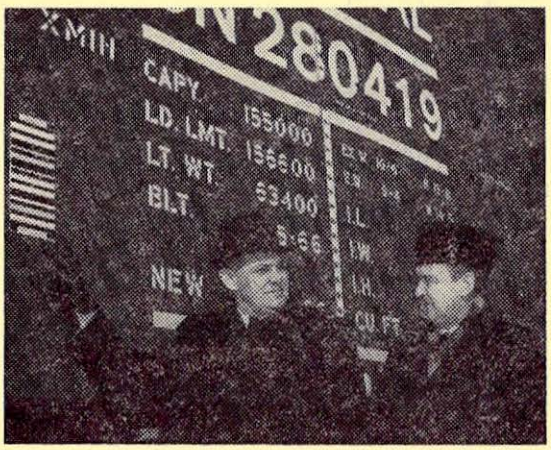
NORTHEAST AREA
J. E. Prendergast
308 E. Lancaster Ave.
Wynnewood, Pa.
(215) 878-2700

SOUTHEAST AREA
F. E. Gonzalez
739 W. Peachtree St.
Atlanta, Georgia
(404) 876-1586

DU PONT
REG. U.S. PAT. OFF.

Better things for better living...through chemistry

SHORT AND SIGNIFICANT



CN will order ACI labels for 100,000-unit fleet

Canadian National disclosed last week that it is ordering Sylvania KarTrak ACI equipment for its entire fleet of approximately 100,000 freight cars, passenger cars, containers, piggyback trailers, and locomotives. This will involve purchase of 200,000 sensitized labels for applications to both sides of each piece of equipment. These labels are read by track-side scanners. Labeling will be completed within the next two years. Delivery of scanners will begin in the fall for performance tests under Canadian climatic and operating conditions on a 150-mile line between Burlington and Gravenhurst in Ontario. In photo (above) are C. W. Armstrong (left), assistant chief of transportation planning, CN system; and J. H. Williams, coordinator of data processing.

GTW claims 70% increase in commuters

John W. Demcoe, Grand Trunk Western vice president and general manager, says GTW moved 70% more commuters in the first 25 days of January than in the same 1967 period. Between Pontiac, Mich., and Detroit GTW now carries a daily average of 2,893 persons.

Shareholders get exchange-offer for C&NW-P&R

Chicago & North Western and Philadelphia & Reading Corp. shareholders last week received a share-exchange offer covering the proposed merger of the railroad and the New York-based holding company (RA, Sept. 25, 1967, p. 11). P&R would be acquired through a new holding company, Chicago & North Western Industries, Inc., which would exchange one share of a $4.20 cumulative convertible preferred issue for each share of P&R common. Industries preferred would be convertible into .75 of Industries common. C&NW shareholders would get Industries common on a share-for-share basis.

NP phones to have 6-digit numbering

By use of new Stromberg-Carlson 4-wire switching systems, Northern Pacific will have complete universal numbering from any point on its direct-dial telephone system on a six-digit basis. This new S-C equipment will provide trunk-tandem switching of calls on a no-loss basis between PBX trunks (circuits), carrier, microwave or physical open-wire lines. Also, this S-C equipment using register-senders for routing of calls is suitable for voice and data transmission. The equipment is now being installed.

MP takes a new slant in RI dispute

The first major position-shift in the complex Rock Island merger case belongs to Missouri Pacific. Initially, MoPac argued that RI should remain independent. Now, however, MoPac President Downing B. Jenks says that if RI is doing as badly as it's alleged to be, perhaps it should become part of another system. MoPac's choice? Chicago & North Western. Testifying at ICC merger hearings in St. Louis, Jenks pointed out that C&NW has tremendous traffic-gathering ability, RI has a long haul, and MoPac's feeling is that the two roads "would fit well together and could do well together." Missouri Pacific's position, Jenks emphasized, is based on acquisition of the entire Rock Island by C&NW. MoPac remains opposed to dismemberment of RI, as has been proposed in the conflicting applications now being considered.

MONDAY MORNING REPORT

SUPER-RAILROADS: WHO PAYS?

In the past half-century, railroads have spent perhaps $15 billion for additions and betterments to the fixed plant. By some experts' estimates—cited most recently by Illinois Central President William B. Johnson—railroads should spend twice that much in just the next 20 years. In the past half-century, even in the top-spending years, outlays for the fixed plant have not amounted to much more than a half-billion dollars. By the current estimates, expenditures averaging at least $1.5 billion a year may be warranted. But who's to pay the bill?

WILL THERE BE A "REVOLUTION" . . .

Not so many months ago, Western Maryland President W. Arthur Grotz opened up on the problem, with the observation that the needed funds "cannot be found short of a revolution in our concepts of private enterprise and of its relationship to government." Grotz suggested, simply, that consideration be given to government purchase of the fixed plant, for lease-back to the railroads.

. . . OR WILL POLICY MOVE TO A MIDDLE GROUND?

IC's Bill Johnson doesn't go that far. Instead, he sees an evolution toward some middle ground, in the government/transport-mode relationship. He talks of private problems with public importance. His comments point toward greater user-repayment of the cost of publicly-provided facilities, and toward government participation in areas where there is little or none today—i.e., railroads.

MONEY'S NEEDED, BUT IT'S NOT AVAILABLE

Most observers would agree that the basic case presented by both Grotz and Johnson is sound: (1) Today's railroad plant will not be adequate for the needs of the future; and (2) under current conditions, the money required for necessary improvement will not be available. To be sure, an improved net-income position will help. So will mergers and technological progress. So will hoped-for changes in tax policy. But $1.5 billion a year for improvement of the fixed plant? The industry had to scratch hard to come up with that kind of spending for *all* capital improvements just last year.

AND A CHANGE IN APPROACH MAY BE REQUIRED

It would seem inevitable, then, that some form of public participation in railroad improvement will be developed. But first, there may have to be an enormous amount of planning—and what some have referred to as a massive educational campaign. One long-time observer of railroad affairs recently had this summing up: "We have a super-abundance of technological know-how. . .but we have been outsmarted by our competitors in the human and social engineering that shapes and enacts public transportation policies."

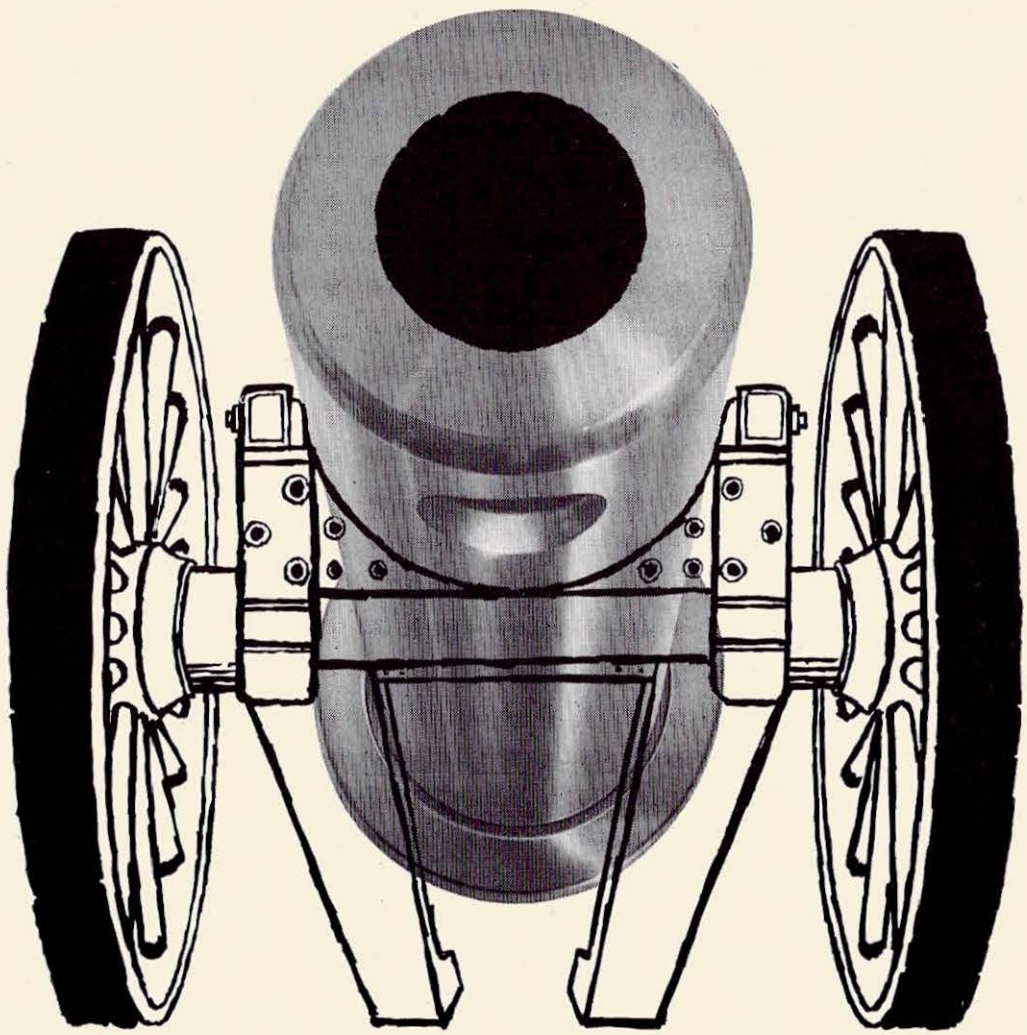
Same old hard sell.

An Ex-Cell-O F Series pin—hardest anywhere. Made from precision-formed, high-carbon steel. Induction-hardened to eliminate distortion. 1/8" case, Rockwell C60 hard. All controlled hardness.

With a chamfered end to go in easy; drilled and chamfered cotter holes, too. Topped off with a zinc coat for rust-free break-in. Stays on the job 'til you think it'll never give up.

Give up? Good. Write Railroad Sales, Ex-Cell-O Corporation, Box 386, Detroit, Michigan 48232.

XLO®
EX-CELL-O CORPORATION



Circle 7 on reader service coupon

Look, what's that Z-VAN?
That's Fruehauf's name for their T.O.F.C. piggyback van!
They say it's the toughest trailer ever!
FRUEHAUF
Z-VAN

Circle 19 on reader service coupon

RAILWAY AGE
THE TRANSPORTATION WEEKLY
February 12, 1968

WEEK AT A GLANCE

Carriers, BRT battle anew on crew issue...

Rail-labor management relations were back in the pressure-cooker again last week—and eight railroads and the Brotherhood of Railroad Trainmen were feeling the heat.

The issue was an old one—crew consist. On the eight roads, handling of the dispute had moved to a point where both sides were free to exercise self-help. From there, things happened fast:

—First, the BRT struck Missouri Pacific and Texas & Pacific, to back demands that past crew-consist cuts be restored. The railroads posted their own notices, reserving the right to determine crew size.

—Seaboard Coast Line took similar action (covering former Atlantic Coast Line employees only), and the BRT responded with a walkout.

—Union Pacific and Southern put consist reductions into effect. They were not struck.

—Boston & Maine posted notices but didn't immediately implement them.

—Chesapeake & Ohio took no action, apparently because C&O and the union were already in litigation. Gulf, Mobile & Ohio also marked time.

MoPac-T&P and the National Railway Labor Conference called for creation of an emergency board. The BRT charged that the carriers were trying to force a national-emergency situation and government intervention.

In the background was BRT's recent Supreme Court victory in the union's drive for local handling on consist issues.

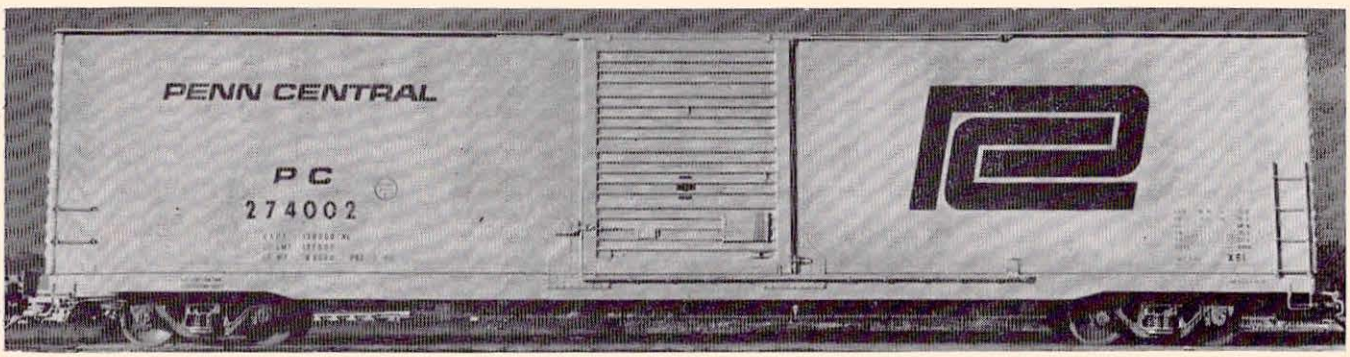
Last week, the fruits of that victory appeared to be turning sour.

...and a confused situation gets more confusing

As the days passed, after the MoPac-T&P walkout, the union's position became awkward. On one hand, BRT people wanted to avoid creating a widespread emergency situation. On the other hand, they were being forced to act as if the reduced-crew operations —down to an engineer and a conductor in some cases—just didn't exist. On MoPac and T&P they had struck to support their principle. But in other circumstances they gave the appearance—at least temporarily—of living with the carrier's right to determine crew size.

In two cases—involving UP and Southern—the union went to Federal district court in an attempt to get orders restraining the roads from reducing consists. In each case, the initial ruling went against the organizations. In the other action, both UP and the union were placed under restraint.

It was, as one participant put it, "a war of nerves—and time."



Who's who on the Penn Central: New staff assignments

Along with a new logo (see cut), the merged Penn Central also has a new "who's who" of officers. P-C is headed by Stuart T. Saunders (former PRR chairman) as chairman and chief executive officer, and A. E. Perlman (former NYC president) as president. Allen J. Greenough, former PRR president, now becomes special consultant to P-C and also president of Pennsylvania Terminal Real Estate Co. Executive vice presidents are Walter R. Grant, former vice president-finance, NYC; Henry W. Large, former vice president-traffic, PRR; and David E. Smucker, former vice president-operations, PRR. For complete list of new assignments see page 32.

GUS WELTY

LINES ON LABOR

REMEMBER THE CITATION: 4-67 Civil 318, U.S. District Court, District of Minnesota, Fourth Division—Soo Line Railroad Company vs United States of America and Interstate Commerce Commission. It all began as a narrow case, Soo's protest against ICC approval of a Chicago & North Western-Chicago Great Western merger. It wound up, as such things sometimes do, with a broad and far-reaching decision—with implications for the whole merger movement.

PART OF THE PRICE of merger, ever since the Washington Job Protection Agreement was signed, has been the protection of the employees of merging roads. Individual agreements have become more and more liberal—to the point where some observers have wondered what more can be done for the employee. Now, a federal court has ventured its opinion on the "what more" question. In a merger, the court majority says, you've got to provide protection for the employees of a competing road if the merger would produce adverse effects for them. In other words, if Roads A and B merge and if their merger produces traffic losses for Road C and if Road C then reduces employment, those employees affected on Road C must be taken care of.

THIS OUTLINE of the court opinion is an over-simplification, to a degree. But it does, perhaps, offer a warning—that a union argument often rejected by the ICC now has a measure of judicial backing.

WHAT THE COURT SAYS is this: If the ICC imposes protective conditions to offset traffic losses and thereby to prevent job losses, no special employee protective conditions need be imposed. But if the railroad is not so protected, and if employees will be directly and adversely affected, then the ICC "must impose protective conditions for their benefit."

IF THIS RULING holds up, what happens? If employees of a non-merging road are affected by a merger, who protects them? Do Roads A and B arrange payoffs or guarantee jobs for Road C's displaced people? Does Road C make agreements with its unions and then dun Roads A and B for whatever the agreement costs? How about the consolidation of merger cases? If, by extension, the welfare of employees of non-merging roads has to be considered, can the ICC stick to its case-by-case approach to merger?

REVIEW OF SOME SORT may be coming up. In the whole context of railroad merger, it would seem most appropriate.

Specifics cited in "rights" case

Last summer, Frisco and the Brotherhood of Railroad Trainmen were made defendants in the first Department of Justice action growing out of the 1964 Civil Rights Act, Title 7. Railroad and union were charged with discrimination, but no specifics were cited (RA, Aug. 7, 1967, p. 7). Now, Justice has filed an amended complaint.

Justice charges that (1) the discriminatory effects of an old agreement between Frisco and the operating brotherhoods have been perpetuated, even though the agreement itself was rescinded in 1949; (2) Negroes employed in the mechanical and engineering departments have been restricted to laborers' jobs and haven't been given promotion opportunities equal to those afforded to whites; (3) Negroes formerly employed in job classifications which have been abolished or where employee complements have been reduced haven't been given equal opportunity to secure other Frisco positions; (4) the railroad has failed and refused to recruit and select Negroes for apprenticeship training on the same basis as whites; and (5) Negroes employed as carman-helpers haven't been given equal opportunity for promotion to carman. The BRT is charged with following a policy and practice of discrimination in its collective-bargaining role, so as to perpetuate an artificial distinction between brakemen and train porters.

The agreement between the railroad and four operating brotherhoods referred to by Justice was made in 1928, and provided that no Negroes would be newly hired in train and engine service except as porters. Though it was dropped almost 20 years ago, Justice contends that Negroes have suffered from two standpoints—compensation, and assignment to duties appropriate to their seniority when passenger assignments were abolished.

GNP&B roads answer protests

It takes the Great Northern Pacific & Burlington roads only 15 pages to provide an answer to six petitions for reconsideration of the ICC's approval of GNP&B merger. GNP&B's conclusions: There are no objections to proposals made by Milwaukee and Soo Line; other petitions—filed by Rio Grande, Union Pacific, a Livingston, Mont., Anti-Merger Committee and a Northern Pacific Stockholders' Protective Committee—should be dismissed.

CULLEN-FRIESTEDT

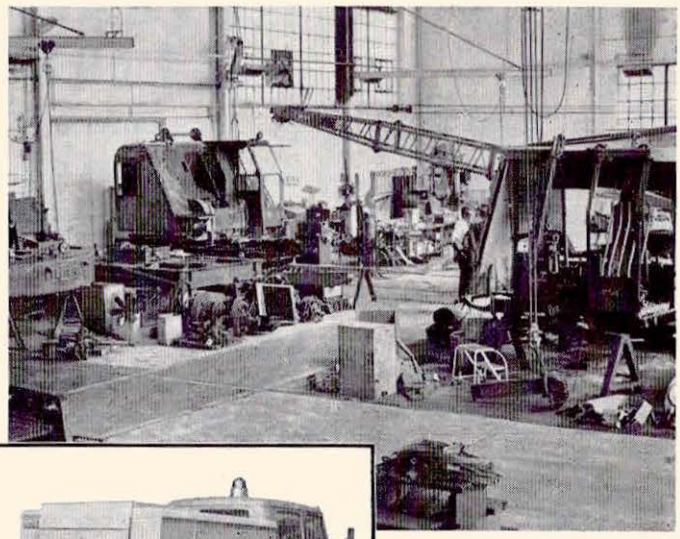
Announces New

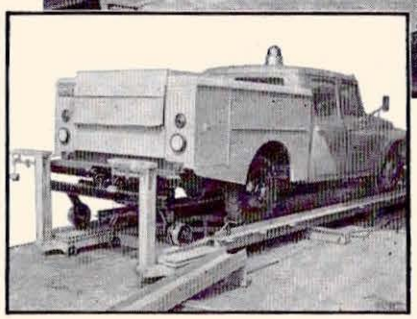
REPAIR and MODERNIZING SERVICE for MAINTENANCE of WAY EQUIPMENT...

complete facilities for Repairing, Modernizing and Rebuilding

- **CRANES**
- **TAMPERS**
- **BALLAST REGULATORS**
- **AIR COMPRESSORS**
- **MOTOR CARS**
- **TRACK LINERS**

for installation, inspection and maintenance work on Auto-Rail Conversion Systems for automobiles and trucks





Conveniently located on Main Line Railroad in Aurora, Illinois

NOW—LEASE or RENT C-F BURRO CRANES
by the job, month or year

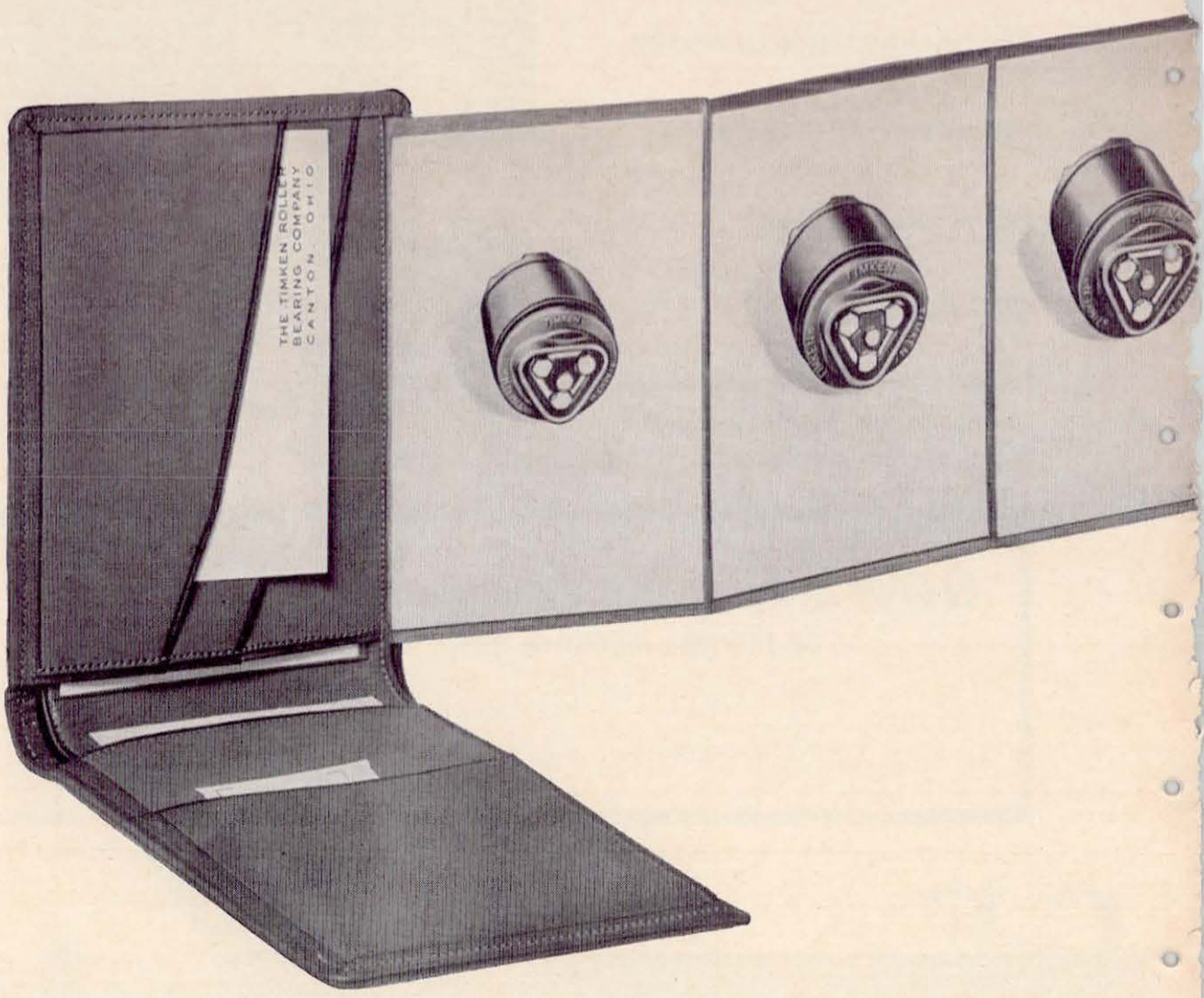
Take advantage of Cullen-Friestedt's new Lease or Rental Plan to get the equipment you need when you need it.
Complete information and rates available upon request.
Call 312-277-4300

C-F

Cullen-Friestedt Company
1314 S. Kilbourn Avenue
Chicago, Illinois 60623

Circle 20 on reader service coupon

Meet the family. We just happen to have their snapshots.



The family of preset, preassembled and prelubricated Timken® railroad bearings. There is a size designed to meet your requirements for every freight car or locomotive. Eight different sizes. Only from the Timken Company can you get a complete selection like this.

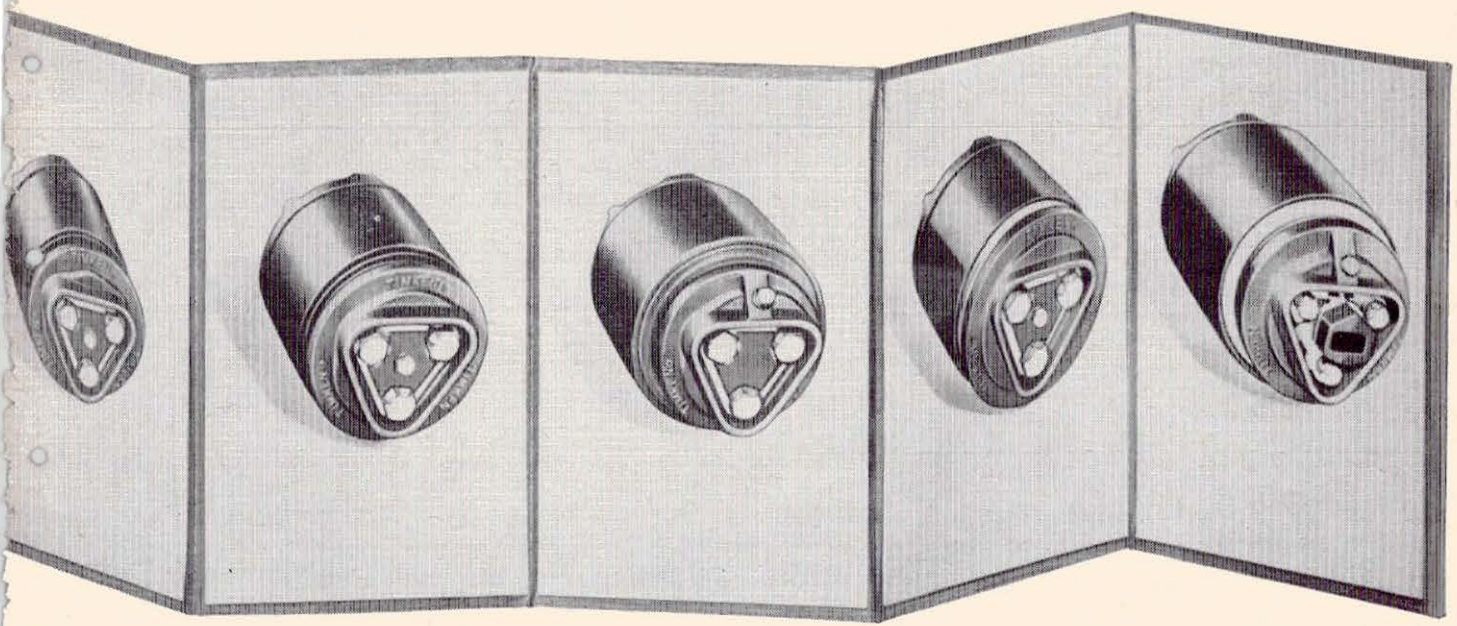
Note the strong family resemblance. They all have our original self-contained, tapered bearing design. It has shown in billions of car-miles that it works better and at lower cost than any other design. And it's proving it right now for nearly 300 railroads and private car owners in North America alone.

We introduced the "AP" bearing a dozen years ago. And since then, our modern production techniques and facilities have enabled us to consistently initiate price reductions. At the same time, costs of other materials have been rising.

But we won't bend your ear with more family history. Call us and we'll introduce you to the bearings best for you. The Timken Roller Bearing Company, Canton, Ohio. Timken bearings sold in 133 countries; manufacturing in Australia, Brazil, Canada, England, France, South Africa, and U.S.A.

TIMKEN®

TAPERED ROLLER BEARINGS



Circle 8 on reader service coupon

BRUSH-CUTTING MACHINES ARE BEING USED IN INCREASING NUMBERS

The availability of various types of mechanical brush cutters has been a big help in the railroads' eternal battle against vegetation. Shown in action above are an RMC brush cutter (left), and a Northwestern 161-B Brush Cutter.

Modern methods score gains

HERE'S WHAT VEGETATION-FREE RIGHT OF WAY SHOULD LOOK LIKE

This view on the Missouri Pacific illustrates a basic goal of railroad engineers in charge of vegetation control.

HERBICIDES ARE SPRAYED FROM TRUCKS

It costs less to spray herbicides from trucks with flanged-wheel attachments than to spray them from work trains. More such trucks are being used every year.

in the battle against weeds

By MERWIN H. DICK, Engineering Editor

A man of wisdom once observed that most men live lives of quiet desperation. The men on the railroads who have the responsibility of dealing with the problem posed by the presence of weeds and brush on the right of way will insist that the saying applies more to them than to anybody else. They have good reason for thinking so.

Vegetation on railroad tracks and rights of way can be stopped by modern chemicals. But, the stoppage is only temporary. Given a little time, the vegetation will be back as hardy as ever, or even more so. Sometimes the original species are replaced by different and more resistant growths. Thus, responsible officers find that they are engaged in an interminable struggle in which they can never picture themselves as being completely victorious.

● **Specter of budget cuts.** But there is more than this behind the sense of desperation. And that is the always-present possibility that the money made available for fighting vegetation may be reduced. When this happens weed-control programs quickly run into trouble. For experience has shown that any let down in such efforts will result in valuable ground being lost, which can be regained only by larger future expenditures.

Today, however, engineers in charge of vegetation control are finding that the feeling of desperation is not quite as strong as it used to be. There are various reasons behind this sense of progress. They include the availability of new and more effective herbicides and other means of fighting vegetation. Even more important perhaps is the fact that on a significant number of roads weed-control budgets have not only been increased but such expenditures have been accorded a higher priority rating than for any time in the past.

The authority for these statements comes from the results of a survey made among railroads by Railway Age to uncover trends or new developments in vegetation control. Selected railroads were requested to submit answers to a comprehensive questionnaire. A total of 33 replies were received.

One question asked the railroads to describe the objectives of their vegetation-control activities. The answers show that these objectives range over a wide area, presumably depending largely on the amount of money available for this purpose.

● **The minimal objective.** At one extreme is what might be called the minimal objective. This is expressed in various ways by different roads. On one road, for example, the purpose of weed control is simply to "control and curtail vegetation in the area of the track," no mention being made of the right of way generally. Another chief engineer expresses this limited objective in these words: "To keep the ballast section free of grass and weeds and control of shoulders to the extent possible."

Then there are the roads whose managements are somewhat more liberal in allocating funds for vegetation control. Roads in this category can extend their weed control operations to include, in addition to the track area itself, the cutting or spraying of brush

THE ANTI-WEED FIGHT MUST NEVER FALTER

under wire lines and in the vicinity of grade crossings to improve visibility. Companies in this group will also include the more important yards in their programs, the objective here being to eradicate all vegetation down to the bare ground in the track areas. The same policy will be followed underneath bridges for fire protection.

● **The ultimate objective.** Some roads are able to go even further by aiming for elimination of all tall-growing weeds and brush from the entire right of way and their replacement by low-growing grasses that don't have to be mowed. This condition might be called the ultimate in railroad vegetation control.

It should be noted here that, in their weed-control programs, railroads are frequently motivated to some extent anyway by local, state and federal requirements. These usually are intended to require practices that promote appearance and reduce the fire hazard. Railroad men complain that such regulations in some states go to extremes in their demands on the railroads, resulting in unnecessary expense.

● **Behind the programs.** In their answers to the questionnaire a number of railroads explained their weed-control objectives by describing the reasoning behind them. Some of these answers are highly meaningful in their explanation of the railroads' motives in controlling vegetation. Some typical examples:

—"To clear tow paths of vegetation which hinders work of employees. To minimize fire-hazard conditions. To obtain adequate drainage in ballast section. To obtain adequate drainage in side ditches. To comply with city, county, state and federal ordinances and requirements. To correct inadequate visibility resulting from brush growth."

—"Primarily to protect our ballast on primary main tracks and promote safety in yards and terminals. Secondary mains and branch lines are treated to reduce wheel slippage and improve safety factors."

—"Reduce fire hazards and improve working conditions by reducing slipping and tripping. Weeds in the ballast cause accumulation of soil and moisture resulting in poor drainage, decreasing life of ties which increases track maintenance. Track inspection is restricted, also surfacing and tie replacement. Weed control prevents the spread of noxious weeds."

● **Are objectives being met?** Have railroads in recent years been able to follow control programs sufficient in scope to achieve the desired objectives? Twenty-one of the 33 railroads returning the questionnaire answered "yes" to this question. The others were asked by what percentage their annual vegetation-control programs would have to be increased to achieve the desired results. Answers to this question ranged from 18% to 500%, with the median figure being about 50%.

One of the most significant points uncovered by the questionnaire is that nearly half the railroads answering it said their vegetation control activities carry a higher priority than they did five years ago. The others indicated that the priority rating was about the same.

● **They're making progress.** Answers to the questionnaire indicated that the majority of the railroads feel they are making progress in the battle against vegetation.

The majority opinion in this respect was revealed by answers to a question which asked if the degree of control over vegetation is better, about the same, or not as good, as it was five years ago. Eighteen of those replying said that their control was better, 11 said it was about the same, and only two said it was not as good.

● **Some have bigger budgets.** Manufacturers of chemicals may find it hard to believe but a fair proportion of railroads that said they have better control over weeds today attributed the progress to larger budgets for this kind of work. Some roads didn't say this in so many words but the implication was there in answers indicating that weed-control programs had been established on a consistent basis year after year. This experience seems to imply that at least some managements have finally got the message—that effective and economical vegetation control can be achieved only by keeping up the pressure through continuing programs that don't have gaps in which vegetation can get a new start.

Herbicides are better now

The reason cited most frequently for today's better vegetation control is the availability of new and better herbicides, and the more effective use of available chemicals. Weed-control programs in which the chemicals used are tailored to the types of vegetation under attack are obviously more common today than ever before. Soil sterilants or residual-type chemicals are also given credit for some of the progress made.

However, most railroads that have achieved better control over vegetation attribute their success to a combination of factors. Most of these factors are covered in the comment of one road which attributed its greater success in vegetation control to "better chemicals, good-sized yearly programs and good supervision and inspection."

Both roads that said the degree of control was not as good as it was five years ago indicated that lack of money was the reason.

● **Battle against brush.** In the past five years railroads have stepped up the use of both mechanical brush cutting and the use of brush-killing chemicals. This trend, brought out in answers to the questionnaire, doesn't necessarily mean that increased use of both methods has taken place on the same roads. It does provide, however, a clear signal that the battle against brush is being carried on with greater vigor than ever before.

One of the questions that helped to bring out this trend asked if brush-cutting activities had tended to increase, decrease, or remain about the same, compared with five years ago. Of the 32 roads answering this question, 14 said they were doing more brush-cutting work today, six said they were doing less and 12 said it had remained at about the same level.

● **Why more brush cutting?** The reasons given for increased brush cutting fell into two main categories. The more important of these is the availability of types of brush-cutting equipment specifically designed to meet railroad needs. The second most important, measured by the number of times it was mentioned, is simply that the growth of brush had reached a point where something had to be done about it. The situation revealed by the answers to this question is an example of what happens when machines of superior efficiency are developed for the first time to meet a specific and urgent need.

Of the six roads on which brush cutting has shown a decrease in the last five years, nearly all gave the increased use of chemical brush killers as the reason.

● **More chemical killers.** Another question inquired if the use of chemical brush killers had tended to increase, decrease, or remain about the same, during the past five years. Of the 30 railroads answering this question, 13

said they were making increased use of brush killers, only six said their use of such chemicals had decreased and the other 11 said the use of brush killers had remained about the same.

On the 13 roads making increased use of brush-control chemicals what were the reasons for the increase? The substance of most of the replies to this question can be wrapped up in one sentence: Chemicals offer a more economical and more effective method of controlling brush than the largely manual methods of control that had previously been used. However, an important part of the picture lies in the fact that the section forces that had formerly been used to cut brush during the winter are simply no longer available.

The six railroads reporting that the use of chemical brush killers had decreased had various explanations. For the most part these reasons could be placed in two categories: Reduced budgets for this type of work and the increased use of mechanical brush cutters.

- **Trends in application.** A series of questions was designed to determine if there is any discernible trend today in the manner of applying herbicides—that is, by contractors or by railroad equipment and forces.

The results indicated that there is an unmistakable movement toward use of contractor applicators. Compared with five years ago, 15 of 30 railroads replying to a question on this subject said that they were making greater use of the services of contractors. Only two said they were using these services to a lesser extent, and 13 said that use of contractor applicators was about the same.

- **Why more contract spraying?** On the 15 roads that reported increased use of contractors what are the reasons for the trend? For one thing, most of the roads that answered in this manner are small or moderate in size. One such road, perhaps reflecting the attitude of the majority of these lines, said: "Being a railroad of about 250 miles of main line, we believe it is cheaper to contract than to buy and maintain a sprayer of our own."

Other lines, agreeing that it was more economical to use the services of contractors, also brought out the thought that contractors were more apt to have qualified personnel, expert supervision and better equipment. Still others indicated that they had gone to the use of contractors because railroad personnel was no longer available for handling the work.

Among the roads reporting increased use of contractors' services there was a single large carrier. What is its reason?

(Continued on page 42)

LUTHER MILLER

AS THE EDITOR SEES IT

POST HASTE?—"Our railroads," grumbles a correspondent, "have been pilloried in the press and crucified in Congress for their alleged failure to haul the mails with sufficient speed and efficiency to suit the Post Office. Has anybody bothered to check up on how the airlines are doing the job, now that they have it?" The answer is yes—the airlines *have* been checked up on. And they're doing a fantastic job.

THE WAY IT WAS—Sixty-five years ago one of our Chicago editors could put a parcel of manuscripts on the "20th Century Limited" late in the afternoon, and be reasonably sure it would be in the New York office the following day. Over the years we took full advantage of this excellent service. So did millions of others.

AND THE WAY IT IS—Then the airplane came along; gradually the Post Office began to shift the bulk of its traffic from rail to air. Last year there was wholesale abandonment of Railway Post Office cars. The "20th Century Limited" was among the casualties. Up in the air went the mail. Now what happens?

HERE'S WHAT HAPPENS—On Thursday, Feb. 1, Engineering Editor Merwin Dick (Chicago) stuffed an envelope with manuscripts due in New York the next day, stamped it "Air Mail," and entrusted it to the Chicago Post Office. At about the same time Senior Editor Gus Welty (also Chicago) filled a second envelope with news stories and stamped it "Air Mail—Special Delivery." In New York, Friday came and went—but no manuscripts.

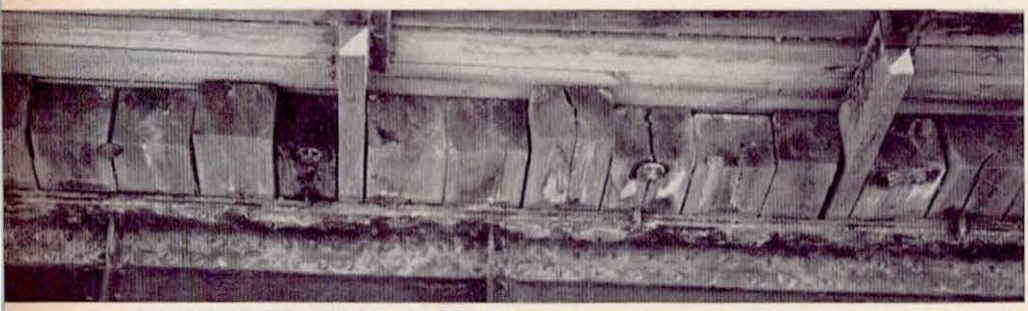
96 HOURS LATER—Hope springs eternal, and on Monday morning the New York copy editors and layout men were primed and waiting for the first mail. But two mail deliveries passed before the missing manuscripts limped in early in the afternoon—96 hours after being posted. The special-delivery parcel carried a stamp certifying that it was received at the New York GPO at 9:30 a.m., Monday Feb. 5. It took only three hours to travel three miles downtown—apparently the fastest leg of the journey.

WHO NEEDS IT?—Blame the weather; blame the Post Office; blame the airlines (which, reportedly, have so much mail that they sometimes stuff it into unoccupied passengers' seats); blame the railroads, if you will. But one incontrovertible fact remains: What took 24 hours by rail in 1905 took 96 hours by air last week. How much more of this kind of progress can our transportation system stand?

COST OF RENOVATING this bridge was about $44,000; renewing deck timbers could have cost as much as $111,000.

Santa Fe saves money by rejuvenating old bridges

The secret is to avoid the greater cost of replacement. This is done by giving planks preservative treatment inside and out.

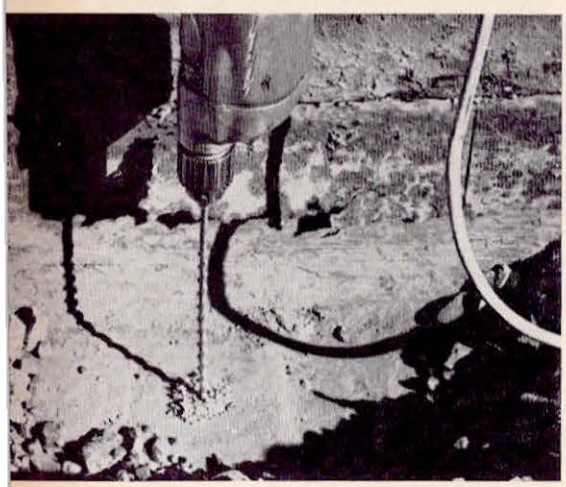


IN SERVICE SINCE 1906

Deck timbers of the bridge across the Pecos River are creosoted yellow pine timbers packed together. They have been in service since the bridge was built.

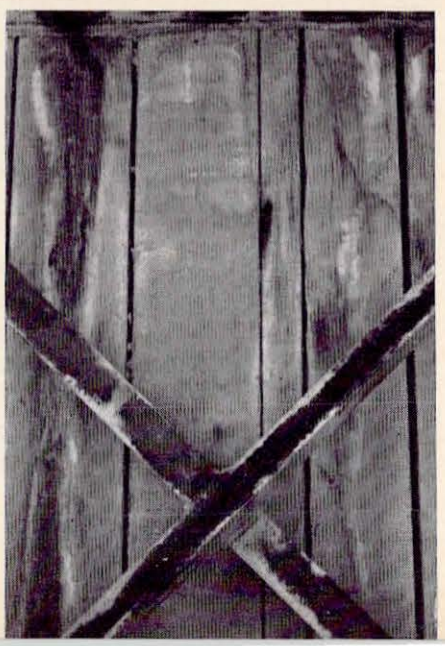
INSPECTION WORK

The deck timbers were inspected from above, by railroad engineers, by drilling about 100 holes in the timbers.



VIEW FROM BELOW

Underside of deck timbers as they appeared before the service-life-extending material was applied.



The timber deck planks of a long ballast-deck bridge on the Santa Fe had been recommended for complete renewal. Instead, the planks, without removing them from the bridge, were treated externally and internally with a timber preservative. The result is that the company stands to benefit by:

(1) An estimated addition of up to twenty years to the service life of the deck timbers.

(2) An immediate saving of $67,000. This is the difference between the estimated cost ($44,000) of the work that was done on the bridge and the estimated cost ($111,000) of renewing the deck timbers.

This project is of interest for another reason. For years a growing list of American railroads, including the Santa Fe, have been extending the service life of their timber bridges by treating them in place with a timber preservative. However, the recent Santa Fe project represents the first instance in which the deck timbers of a ballast-deck bridge have been subjected to the in-place treatment.

• **It's 1500 feet long.** The bridge involved in this project is the road's single-track 1,500-ft ballast-deck bridge across the Pecos River near Fort Sumner, N. M. The bridge consists of fifteen 100-ft deck-plate girder spans carried on concrete piers ranging in height from 60 to 90 ft. To provide a floor for the ballast a deck consisting of 10-in. by 12-in. by 14-ft creosoted yellow pine timbers packed together was laid on the girders. Other features of the deck include a wood guard rail or ballast retainer on each side and timber walkways on both sides. The deck timbers had been in service since the bridge was constructed in 1906.

The attention of division personnel had been directed to the bridge because of complaints that the track across it was rough riding. It was also

(Continued on page 25)

Here's proof Shell Tornus* Oil excels in hot performance

Below you see clear proof that Shell Tornus* Oil works to keep engines clean. Far cleaner than any conventional oil. Cleaner than the most widely used superior-type oil.

Tornus Oil's remarkable performance is *verified:* Tornus Oil is approved by General Electric as a Superior Lubricant for its highest horsepower locomotives. It's listed by General Motors as a Widely Used Oil for turbo and non-turbocharged engines. And it's in use by 19 railroads to date, in both old and new locomotives, all makes, in all kinds of service.

Let Shell demonstrate that Tornus Oil is a superior Superior Lubricant in *your* equipment. Call one of these offices: New York (212) 586-6000; Chicago (312) 341-3275; San Francisco (415) 392-5400. Or write: Shell Oil Company, Railroad Sales Dept., Room 3844, 50 West 50th St., New York, N.Y. 10020.

SHELL

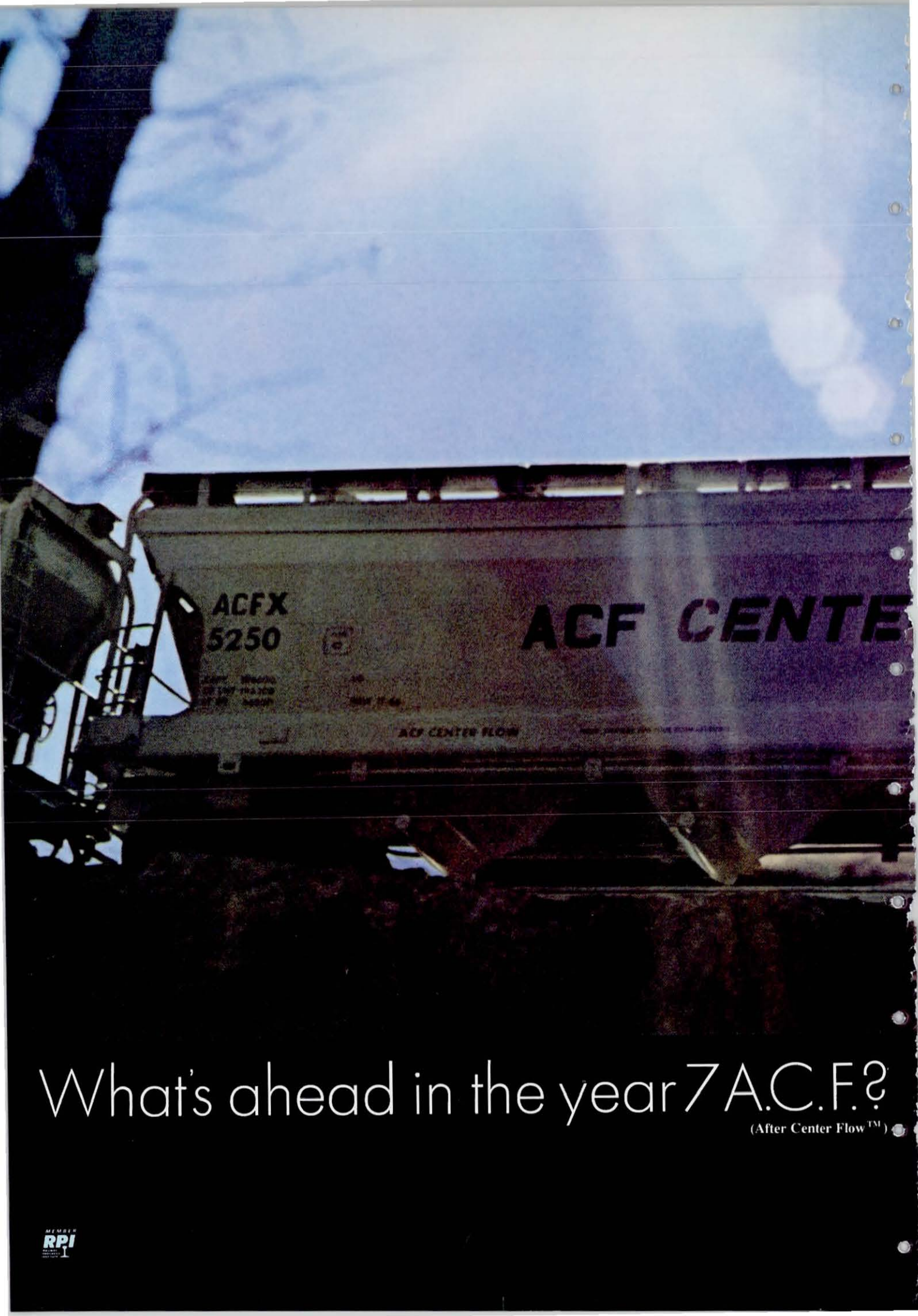
*Trademark Shell Oil Company

MOST WIDELY USED SUPERIOR-TYPE OIL

Note lacquer buildup in this piston's ring belt area—result of a Texaco Diesel Screening Test in which both pistons shown were run 50 hours in a single-cylinder, high-output diesel test engine at 1500 rpm, 225°F. oil gallery temperature. Oil performance in a TDST is evaluated by a demerit system applied to the undercrown and ring belt areas. The piston above, lubricated with the most widely used superior-type oil, rated 142.2 demerits.

SHELL TORNUS OIL

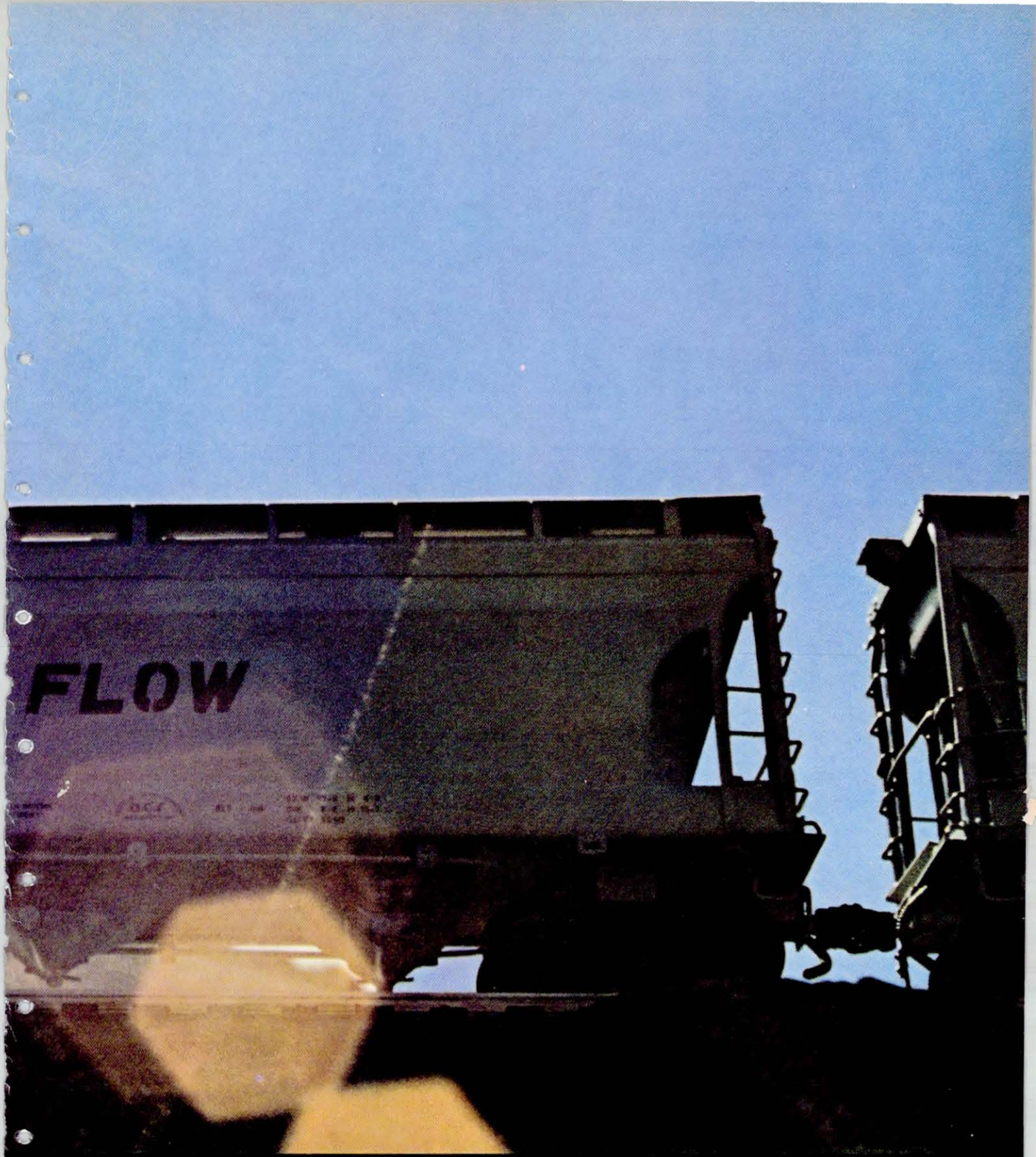
Note the virtual absence of lacquer in this piston's ring belt area—yet both pistons shown are specimens from identical Texaco Diesel Screening Tests. In a TDST, conventional railroad engine oils usually rate 180 to 210 demerits. High-dispersancy oils usually rate 110 to 150 demerits. The piston, *left,* lubricated with the most widely used superior-type oil, rated 142.2 demerits. The piston, *above,* lubricated with Shell Tornus Oil, rated 86.5 demerits.



What's ahead in the year 7 A.C.F.?

(After Center Flow™)

MEMBER RPI



More and more decision-makers will join the Center Flow Revolution.

In 1968 we celebrate the 7th Anniversary of the start of the Center Flow Revolution. Since 1961, the Center Flow car has been offering dry bulk shippers a standardized covered hopper matched to the demands of the product. At last count, over 20,000 Center Flow cars had been placed in service. Thousands more are on the way.

It had to happen, because the Center Flow car offers unique advantages. Car sizes from 2970 cu. ft. to 5700 cu. ft. A pear shape to give fuller use of cube. No interior sills or obstructions to cause hang-up or residue. Hatches and outlets to meet any existing handling system. Whatever you want to move—flour, sugar, cement, you name it—we have a Center Flow car designed to move it. And you can unload by gravity, pneumatic or pressure differential—or, for that matter, by all three methods with the same car.

Join the Center Flow Revolution. Call or write the American Car & Foundry Division, ACF Industries, Incorporated, St. Charles, Mo. 63301.

acf

ACF INDUSTRIES

WEREN'T YOUR PARTS SYSTEM TESTED?

(Pity. GE system-tests all parts)

General Electric renewal parts are tested in all the conventional ways. But the original manufacturer can go one big step further. We can run parts in . . . and wring them out, under up-rated conditions, on exactly the same equipment you'll be using them in. We can, and we do!

System testing — something only the original manufacturer can provide.

GENERAL ELECTRIC

121-37

PARTS SALES OPERATION, ERIE, PENNSYLVANIA • YOUR SINGLE-SOURCE SUPPLIER FOR GE TRANSPORTATION EQUIPMENT.

Circle 3 on reader service card

JOB WAS DONE WITHOUT TRAFFIC INTERRUPTIONS

(Continued from page 20)
evident that the ballast was in poor condition. During the 1967 working season it was planned to operate an undertrack plow in the territory where the bridge is located. As part of this work it was planned to change out the ballast on the bridge and to renew the ties out of face.

● **Deck renewal proposed.** Renewal of the deck timbers of the bridge while this work was under way was proposed by division personnel. Before a final decision was made on this proposal a thorough inspection of the deck timbers was made by railroad engineers. In this inspection, 66 holes were opened in the ballast and approximately 100 holes were bored in the timbers. These borings indicated that about 25% of the timbers contained measureable internal decay but that only about 2% were classed as rejects. The inspection party also noted that the ballast was in a cemented condition.

On the basis of these results it was decided not to renew the deck out of face at the time the track work was being carried out across the structure. While this work was under way the plan was to clean the deck timbers and to flood them with a pentachlorophenol solution to deter future decay. At this point consideration was being given to subjecting the timbers to internal preservative treatment at a later date.

● **Work on the deck.** Track work across the bridge was carried out by three gangs. One started at each end and the third started in the middle of the bridge working toward the east end. Each gang worked on a section of the deck at a time. It first removed the inside steel guard rails in the section and then dug out the ballast from between the ends of the ties and the timber ballast retainers. This material was thrown over the side of the bridge to the ground. Next, the deck timbers were turned over to allow the remaining ballast to fall to the ground. After being cleaned they were rolled and flooded on all sides with the penta solution.

During this work every third tie was blocked up to allow traffic to pass. When the deck for a section had been worked over, new ballast was dumped and the track was tamped. As part of the project the track ties were renewed out of face.

● **Timbers inspected internally.** When the track work had been finished steps were taken to determine if internal preservative treatment of the deck timbers was justified. The Osmose Wood Preserving Co. of America, Inc., was invited to make a thorough inspection of the deck timbers. This was done from the underside of the deck and involved about 30% of the timbers. Each member inspected was first sounded with a hammer. When soundings indicated the presence of internal decay, borings were made to determine the extent of it.

On the basis of this inspection, which indicated an estimated decay incidence of 26%, the Osmose concern concluded that the life of the deck timbers could be materially extended by subjecting them to internal preservative treatment in place. The company, therefore, submitted a proposal for internal treatment of all deck timbers in the bridge, the treatment to be carried out from the underside of the deck. The proposal included a diagram indicating where holes would be bored in each timber during the treating procedure. It also provided for injection in the holes of the Osmose "24-12" preservative, the active ingredient of which is pentachlorophenol. Purpose of the treatment would be to kill any fungus present and protect adjacent sound wood against decay.

● **Injecting the preservative.** The Osmose proposal was accepted by the railroad and the work was performed by a crew consisting of a foreman and three or four men. The boring pattern used called for boring five 3/8-in. holes in each deck timber. One hole was bored outside each girder and one just inside, both at an angle of 45 degrees toward the girder. A single hole was bored at the midpoint of each timber. If decay was encountered, additional holes were bored to determine its limits.

The holes in the deck timbers were made with a 3/8-in. electric drill operated by portable gas-electric generator. As each hole was drilled, a shell-thickness indicator was used to determine the size of any void in the member. The size of the void and the shell thickness were written on the timber in yellow keel and later indicated on an inspection and treating form by the foreman.

Preservative was injected into all the holes under a pressure up to 100 psi. The injection was continued in each hole to refusal or until the fluid began running out the end of the timber in a steady stream.

The work performed by the Osmose concern was carried out without interruptions to traffic. Estimated cost of the work was $14,350. ■

Internal treatment was a tricky job

The injection of preservative into the deck timbers of the Santa Fe's Fort Sumner bridge by personnel of the Osmose Wood Preserving Co. was an operation that had to be carried out from the underside of the deck, both inside and outside the girders. For the outside work the men used the catwalks and wore safety belts fastened to the cables strung along the outsides of the girders.

When working inside the girders the men used a falsework floor laid on the catwalks for about 30 lineal feet. Since the cross bracing between girders was placed at 10-foot intervals, the falsework flooring was laid and moved forward in increments corresponding to these spacings. The flooring consisted of eight 2-inch by 10-inch by 9-foot timbers laid crosswise in each 10-foot space and covered with pieces of 3/8-in. plywood 3 feet by 8 feet in size.

As the work in a 10-foot space was completed the flooring was moved forward by passing the boards and plywood sheets through the sections being worked to the next space to be worked. The operation of moving the planks and plywood was done by men wearing safety belts fastened to cables passing through holes in the inside stiffener angles.

Pressure for injecting preservative into the deck timbers was supplied by two pumps, each driven by a portable gasoline engine. The pumps and generators used for operating the drills were on the ground beneath the bridge. In some locations it was necessary to use as much as 300 feet of electric cord. Drums of preservative were distributed on the ground from a roadway under the structure.

Is peace possible between labor and management?

The consensus at a rail management institute: Yes—if both sides will face up to their responsibilities.

The subject was cooperation, between management and labor. The forum was American University's annual Railroad Management Institute, with its class of about 65 attentive, inquisitive middle-management students. The discussion leaders were an active participant and an active observer in management-labor affairs—J. P. Hiltz, Jr., chairman of the National Railway Labor Conference, and Gus Welty, senior editor of Railway Age.

Both Hiltz and Welty expressed a certain hope—call it even optimism—that a higher degree of management-labor cooperation can be achieved. The three-and-a-half-hour discussion they led didn't produce any pat answers, because there aren't any. But a number of problem areas were rather clearly defined—and there were candid observations regarding the responsibilities of both management and organized labor in working toward an improved climate in their relations.

No aspect of the complex management-labor relationship was spared. Predictably, there were pointed suggestions as to moves which the brotherhoods might make. But there were also pointed suggestions regarding management's own role in working with employees and their representatives.

● **A 'big boy' now.** On the union side, NRLC Chairman Hiltz noted first that "a realization on labor's part that it has now grown to be a really big boy—and that it should conduct itself accordingly—would help the situation tremendously. In other words, labor should operate in a business-like, responsible manner and discontinue such practices as dreaming up unrealistic demands and then becoming enchanted with its dreams to such an extent as to find itself taking a position of being unable to back away from fancy without loss of face."

Hiltz also emphasized that "unions must cultivate an appreciation of management problems. Until they do this in meaningful fashion—and until management reciprocates—there can be no truly harmonious and fruitful relationships between the two sides. . . . Lack of consideration by the unions for the particular problems of the railroad industry is one of the main reasons for the poor financial health of the industry today, and unless this consideration is developed, dire results—which neither management nor the employees would want to experience—could eventuate.

Finally, Hiltz said, "there must be a change in labor's approach to its relationship with management which will evidence a real desire for improvement in relationships. . . . Let both labor and management approach their relationship with a real desire to improve it for the mutual benefit of the employee and the enterprise, and an improvement can and will occur. The two sides do not have to be natural enemies, as so many people on each side have concluded."

● **Cause and effect.** Welty approached the employee/union responsibility in terms of motivations—with the observation that the drives of the individual aren't necessarily always the drives of the organization:

"We know, or we strongly suspect that we know, the occupational goals of the individual employee. He wants a wage that permits him to live comfortably in a society that has become increasingly luxurious. He wants stability, in job and income. He wants protection, again in job and income. He wants his legitimate gripes taken care of. He wants position—he wants to enjoy a certain respect and, just as important, he wants to have his skills recognized. In these things, there's nothing that management could really find to argue with—subject, of course, to the individual's keeping his desires within the bounds of the reasonable."

"There should be little doubt in management's thinking that good employees are the single most valuable asset an enterprise could have."

NRLC Chairman
J. P. Hiltz, Jr.

The organization, however, may be something else again—and while the usually-cited union motivation deals with service, Welty said, to an increasing extent survival seems to be developing as a basic motivation.

Railway Age's labor columnist noted the slowness with which union merger negotiations have been moving, and the evidences of members' dissatisfaction with the operation of certain organizations. His point: "Mr. Hiltz and the NRLC have a lot of problems—and I have to wonder how many of them reflect union leadership's own uncertainty as regards its power base. I have to wonder how much overt cooperation management can expect, so long as union structure itself is an anachronism, and so long as indications of restlessness in the ranks create feelings of uncertainty in the grand lodge. Clearly, hope for a greater degree of cooperative effort will depend to a large extent on how successful progressive union leaders are in settling their own problems."

● **Proposals for change.** Both Hiltz and Welty also had comments on changes—general and specific—which might be made on management's part.

On management's side, NRLC's chairman said, "perhaps the most important need is a true and uncompromising realization of the importance to the enterprise of each and every employee. If management will give more than lip service to this concept, it will have done more to improve labor-management relationships than through any other single approach it could take. There should be little doubt in management's thinking that good employees are the single most valuable asset an enterprise could have. As such, they should receive the same, or better, consider-

"Hope for a greater degree of cooperative effort will depend to a large extent on how successful progressive union leaders are in solving their own problems."

Railway Age Senior Editor Gus Welty

ation as that given all other assets of the enterprise, to the end that their effectiveness is of the highest. A part of this consideration should be an acceptance by management of the fact that employees are partners in the enterprise along with management, the owners, the customers and the public—and as such they should share in the success of the business to an equitable extent with the other partners."

Management, Hiltz said, "must also recognize a need for its appreciation of labor's problems, just as there is a need in the reverse direction. The sooner management acknowledges that unions are not only a permanent institution but also a desirable one, the sooner it will be able to deal more knowledgeably and more effectively with them."

● **'Effort will be made.'** In addition, he said, there's the need for management "to truly appreciate the benefits which derive from a good relationship. There is a high price tag—albeit an intangible one—which can be attached to good employee morale. There is a value which can be set on elimination of work stoppages, slowdowns and disgruntled reactions. Further, undesirable products result from continued badgering and harassment to and by both sides. When management realizes these facts and the further fact that a conscious effort toward improvement of good relationships—through understanding and without paternalism or coddling—will produce benefits, then I think that effort will be made."

Taking the observer's look at management, Welty saw first a need for much-improved lines of communication within the management structure—to insure that labor-relations and operating people are working together toward the same ends, and to guarantee that fellow employees aren't totally dependent upon local union officers for information on new agreements.

Railway Age's senior editor also urged that greater attention be given to "helping the individual employee help himself. We're talking about change, and a changing industry. What we mean—and this is reflected every year in the new-year statements of railroad chief executives—is that we need a new breed of cat, up and down the line. Chief executives emphasize the need for staffing their properties with more talented, more able, better-trained people. But these programs seem to wax and wane with net income statement. When revenues fall and net tumbles, the talent-search suffers. Jobs aren't available for trainees when they complete their courses. New hires are shut off. In-service training programs are cut back. Bright youngsters on the bottom of the roster find things pretty tough. . . . But I would strongly suspect that there would be important side-benefits, as well as direct ones, if the people down in the ranks could be more strongly motivated, if they could see more clearly their contribution to the success of the enterprise, if management could demonstrate more forcefully its desires, selfish or otherwise, to help the individual employee better his own position."

● **Needed: Extended planning.** In particular, Welty also noted the increasing need for long-range planning, for long-range goal-setting on the part of both the organizations and railroad management. "We have all around us," he said, "the recent evidence of what can be done by cooperative effort for mutual advantage, by agreement to agree rather than to disagree—in the negotiations leading to the uniform health-and-welfare program; in the joint move for improvement of retirement benefits; in the settlement of the wage case with the biggest of the rail unions, the Brotherhood of Railway and Airline Clerks. We have, still, a certain problem in defining 'mutual advantage.' But longer-range planning, by both labor and management, could help to clear this up."

In talking of planning, both speakers called attention to the number of unions trying to represent today's railroad employee.

Welty, dealing with the question in a general way, expressed optimism that mergers among unions will take place: "The union leaders taking the initative appear to be the more forward-looking in the industry. They are, for the most part, leaders who have displayed a certain preference for getting along—for settling disputes without creating a national transportation crisis in the process. And they seem to be men who fully realize the price of merger."

● **Good and bad mergers.** Hiltz entered a cautionary word: "Desirable, properly constituted and well-intentioned union mergers would do a great deal to enhance labor-management relationships. In my opinion, a merger which would meet these criteria would be one which would bring together two or more unions whose constituents have a common work-pattern in a somewhat common environment. Such unions would be most likely to have the greatest degree of mutuality of interests and objectives, and their merger would be most likely to eliminate the conflicts of jurisdiction and representation that exists today.

"But a merger between a union whose members work with tools in a shop and one whose members work with pen and pencil in an office would not produce what I regard as the sought-after results. In fact, I would expect such a merger to accentuate and prolong disputes and, perhaps, to create new areas of conflict. The same would be true of a merger between a union which represents employees who work with hands and feet in the open to physically accomplish the job of moving freight and a union whose members mainly handle letters, memos and other printed matter to accomplish their objectives. . . .

"Conglomerates may be desirable in the world of business and finance, but in railroad labor I think they would be unsuccessful in themselves—and I think they would not contribute to labor-management peace, because they would perpetuate and probably accentuate the undesirable conditions which they should be trying to overcome."

● **New settlement machinery?** NRLC's chairman also spoke out strongly in the area of new ways to settle labor disputes. There is, he emphasized, a need "to provide a substitute for economic muscle in the final resolution of disputes. At present, the railroads are so out-

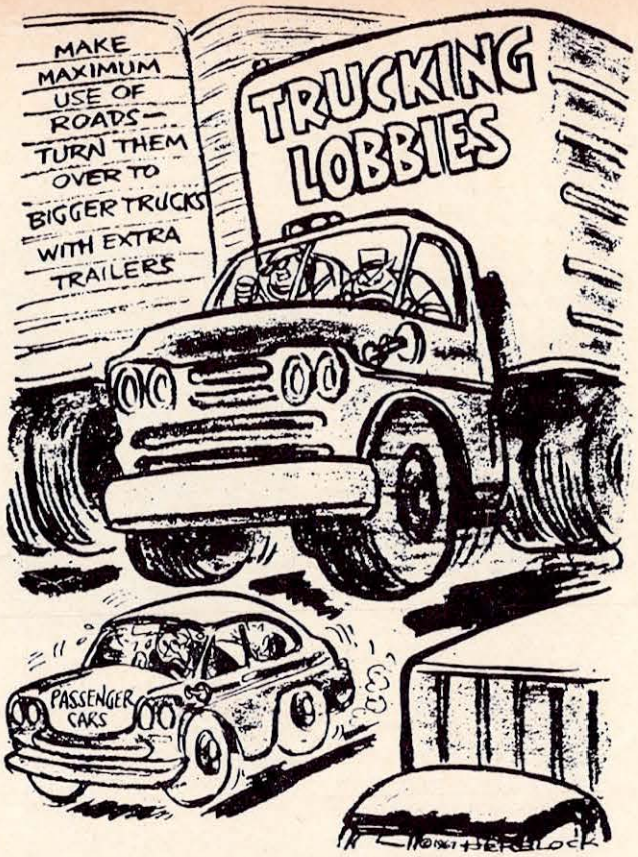
(Continued on page 41)

E. G. STAFFORD, JR., VICE PRESIDENT
Roscoe, Snyder and Pacific Railway Co.

"The technological changes taking place in the railroad industry at the present time are indeed staggering. Operating a railroad today cannot be based upon tradition as heretofore, but requires a day to day appraisal of new ideas, new products, and new methods by all departments.

"We on the Roscoe, Snyder and Pacific find Railway Age a dependable source of information to keep us abreast of current developments in all areas of the railroad industry. This useful and helpful trade publication is a very valuable tool to us, and merits thorough and careful reading each week."

E G Stafford Jr


MAKE MAXIMUM USE OF ROADS— TURN THEM OVER TO BIGGER TRUCKS WITH EXTRA TRAILERS
TRUCKING LOBBIES
PASSENGER CARS
HERBLOCK

"WE'RE GAINING ON 'EM — NOW CLOSE IN FOR THE KILL"

Copyright 1967 Herblock in the Washington Post

Cartoonist's nightmare about to come true?

Legislation now pending in Congress would open the Interstate Highway System to "trains" of trailers. Hearings start next week.

Tractor/trailer combinations moving on the Interstate Highway System could become veritable "trailer trains" if Congress passes a pending bill to change federal size and weight limits which have been in effect since 1956.

The proposed changes are embodied in a bill, S. 2658, which comes up for hearing next week before the Subcommittee on Roads of the Senate Committee on Public Works. Senator Jennings Randolph (D.-W.Va.), chairman of the parent committee, also heads the subcommittee. S. 2658 was introduced by the chairman of the Commerce Committee, Senator Warren G. Magnuson (D.-Wash.) for himself and some 20 other Senators.

The size and weight limits imposed by the 1956 law are: single-axle, 18,000 pounds; tandem axles, 32,000 pounds; gross weight, 73,280 pounds; width, 96 inches. There are no length and height limits. The imposed limits are already more liberal than those recommended by the American Association of State Highway Officials. States which exceed them are subject to loss of federal aid for their sections of the 41,000-mile Interstate System; the 1956 law left limits on all other federal-aid roads up to the states. Moreover, it included a grandfather clause and thus did not force rollback as to the Interstate System by states which already had more liberal limits.

Generally, the present 73,280-pound gross-weight limit has kept the length of vehicles down, despite the law's lack of a length limit. The Magnuson bill, however, has no specific gross-weight limit. It would determine that by a formula which could permit gross weights of around 125,000 pounds. A railroader who has been following the matter says this would permit a tractor to pull several trailers so long as required axle-load limits and axle-spacings were observed. The proposed axle load limits are 20,000 pounds, single; and 36,000 pounds tandem. There would be a width limit of 102 inches but there would be no height or length limits. ■

THE NEXT MOVE IS UP TO THEM

Sen. J. Randolph (D.-W. Va.)

Sen. H. Baker (R.-Tenn.)

Sen. S. Young (D.-Ohio)

Sen. H. Fong (R.-Hawaii)

Sen. J. Montoya (D.-N.M.)

Sen. E. Gruening (D.-Alaska)

Sen. B. Jordan (D.-N.C.)

Sen. B. Spong, Jr. (D.-Va.)

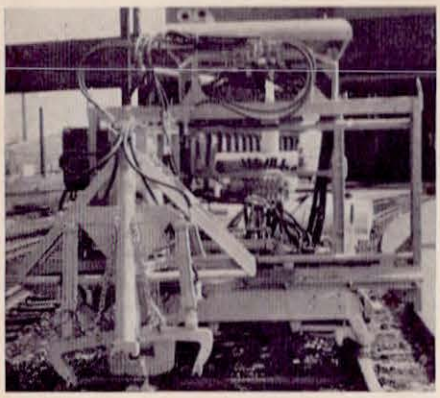
Sen. J. Boggs (R.-Dela.)

Sen. L. Jordan (R.-Idaho)

Sen. B. Bayh (D.-Indiana)

Above, members of the Senate Roads Subcommittee. Not shown: Joseph D. Tydings (D.-Md.), John Sherman Cooper (R.-Ky.).

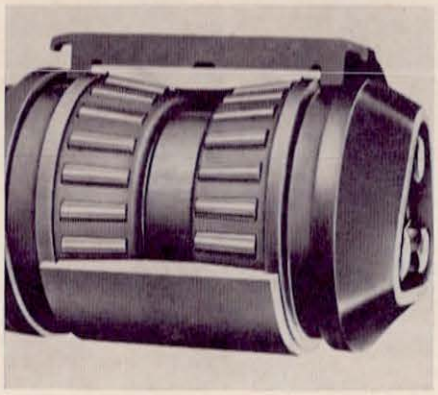
NEW PRODUCTS REPORT



Crib reducer (RA-1)

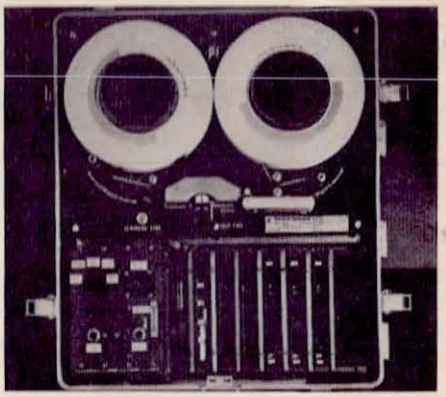
A new attachment has been developed for improving the operation of the RMC Joint Straightener. Mounted in front of the machine is a hydraulically powered unit that removes ballast from the "eyes" of the cribs under the rails to make room for the lifting clamps of the Joint Straightener.

In operation, the Crib Reducer moves from one rail to the other along with the head of the Joint Straightener. *Railway Maintenance Corp.*



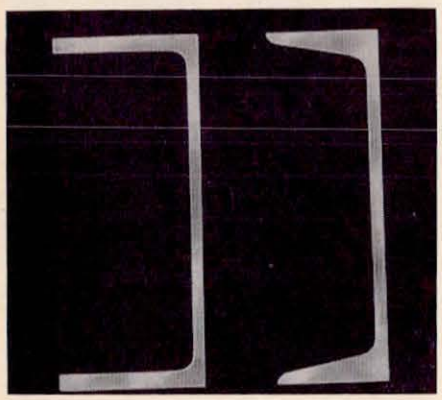
Journal bearing (RA-2)

The Koyo freight-car journal roller bearing which has been given AAR certificate of approval is now produced in six sizes from 4¼- by 8-inch to 7- by 12-inch. Rated in accordance with AAR specifications, Koyo tapered bearings have a rated B-10 life of 500,000 miles under 80% load. Vital bearing components are produced from vacuum-degassed, case-hardened steels. Synthetic rubber oil seals are encased in a steel cover. *American Koyo Corp.*



Environment recorder (RA-3)

The Transportation Environment measuring and Recording System (Temars) is said to reveal total shipping environment. Incremental digital record is made on 600-ft-long, 1/2-in. reel-loaded magnetic tape. At 15-min intervals instrument records time and samples and records temperatures from 0 to 140 deg F and humidity from 20 to 95 % rh. At end of trip, data from computer-processed tape is ready for review almost instantly. *Endevco Corp.*



Aluminum structurals (RA-4)

New standard structural aluminum I-beams and channels have been developed which feature higher section properties with the same weight per foot as existing shapes. The new designs, all extruded in Alloy 6061-T6, have wider and straight flanges with thinner webs. The 15 new I-beams range in size from 3 to 12 in. and the 20 new channels (right) cover the range from 2 to 12 in. Straight flanges eliminate the need for tapered washers in assembly. *Aluminum Association.*

Power supply (RA-5)

The SBT 24-4.5 power supply has been designed to furnish regulated and filtered DC for the operation of telephone switching and transmission equipment. It will supply 24 volts DC talking battery for telephone operation. The unit will also provide DC current up to 1,500 ma at 4.5 volts on an intermittent basis for the operation of special equipment. Unit uses a power transformer and circuit is solid state. *Gardner Engineering.*

RAILWAY AGE
THE TRANSPORTATION WEEKLY

30 Church Street, N.Y., N.Y. 10007 READERS' SERVICE (Att. George Johnson)

PLEASE SEND ADDITIONAL INFORMATION ABOUT PRODUCTS IN ADVERTISEMENTS NUMBERED: 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22

PLEASE SEND INFORMATION ABOUT PRODUCTS DESCRIBED ON PAGE 30 MARKED RA-1 RA-2 RA-3 RA-4 RA-5

NAME ..... TITLE.....

COMPANY .....

ADDRESS .....

CITY ..... STATE ..... ZIP .....

2/12/68

• Inquiries can be processed only if title and company are shown.

H. J. Breithaupt, Jr.
AAR

J. W. G. Macdougall
CN

Ernest J. Cooke
CN

G. R. Johnston
CN

PEOPLE IN THE NEWS

ASSOCIATION OF AMERICAN RAILROADS.—Harry J. Breithaupt, Jr., general attorney, Washington, D.C., named general solicitor, succeeding **William M. Moloney,** elected general counsel last October.

David M. Eichten, who joined the AAR last October, took over new duties as director, Railway Mail Transportation Division on Feb. 1. Previously Mr. Eichten was manager of pricing, lines west, freight traffic department, **Great Northern.**

Robert B. Curry appointed vice president in charge of the AAR's Management Systems Department on Jan. 29. Mr. Curry was formerly manager—planning and resources, Information Systems Division, **General Electric.**

BURLINGTON.—R. W. Richards, assistant manager of materials, Chicago, advanced to assistant to the general purchasing agent there. Mr. Richards' successor is **R. E. Clayton,** traveling storekeeper, Chicago. **Michael J. Barron** appointed marketing manager-animals and products. He was formerly manager of distribution planning, **Armour Grocery Products Co.,** Chicago.

CANADIAN NATIONAL.—J. W. G. Macdougall, general counsel, Montreal, appointed vice president, Atlantic Region, Moncton, N. B., succeeding **Ernest J. Cooke,** appointed a vice president at system headquarters, Montreal.

G. R. Johnston, assistant vice president—freight sales, named vice president—freight sales, Montreal.

CHICAGO & EASTERN ILLINOIS.—George L. Corley, Jr., assistant manager, truck-rail and merchandise sales, **Missouri Pacific-Texas & Pacific,** Dallas, named manager-TOFC sales, **C&EI,** Chicago, to succeed **Frank R. McVoy,** appointed traffic manager, truck-rail and merchandise sales, **MP-T&P,** and vice president sales for the **Missouri Truck Lines, Inc.** and **Texas & Pacific Motor Transport.**

INTERSTATE COMMERCE COMMISSION.—Michael A. Inverso appointed railroad service agent, Section of Railroads, Bureau of Operations, Detroit, Mich. Mr. Inverso formerly worked for the **Pennsylvania** in the operations and transportations departments, New York Area.

KANSAS CITY SOUTHERN.—W. E. Davis, vice president and general counsel, retired Dec. 31, 1967, after more than 43 years of service. **R. E. Zimmerman** named general counsel, and **R. W. Spachman,** assistant general counsel, both with headquarters at Kansas City, Mo. **Irvine O. Hockaday, Jr.** named general attorney, Kansas City.

Charles D. Pollard, general agent, Dallas, transferred to Portland, Ore., to succeed **Nels R. Howe,** who retired Dec. 31, 1967, after more than 37 years' service. **Glenn R. Gilmore,** traveling freight agent, Minneapolis, replaces Mr. Pollard.

LOUISVILLE & NASHVILLE.—H. C. Weddle, traveling freight agent, named general agent, Boston, to succeed **W. C. Forsythe,** who retired Jan. 31 after 45 years' service.

MILWAUKEE.—George A. Sansverie, assistant manager of rail-highway sales, Chicago, named district manager of foreign freight sales, New York.

MISSOURI PACIFIC.—W. D. York named master mechanic, New Orleans.

MISSOURI PACIFIC-TEXAS & PACIFIC.—J. A. Austin, trainmaster, Poplar Bluff, Mo., named superintendent, Rio Grande division, Big Spring, Tex., to succeed **D. W. Schwarz,** resigned. **C. E. Dettmann,** assistant trainmaster, El Dorado, Ark., replaces Mr. Austin.

K. M. Converse named superintendent, Dallas-Fort Worth Terminal division, **T&P** and **Ft. Worth Belt Railway,** with headquarters at Fort Worth, Tex. **J. E. Bernhardt** appointed assistant superintendent, **TP-MP Terminal Railroad of New Orleans** and **New Orleans & Lower Coast,** New Orleans. **H. W. Ritter,** assistant trainmaster, **MP,** Memphis, Tenn., advanced to trainmaster, **T&P,** Dallas.

L. G. Clem, Jr. appointed manager-data control, St. Louis.

John C. Selover, traffic manager-Western Region, Kansas City, elected vice president, Texas & Pacific District, Dallas, to succeed **Marvin L. Smith,** who retired Feb. 1 after more than 45 years of service. Mr. Selover's successor is **Paul E. Watson,** traffic manager, Chicago. **B. Warren Shields,** sales manager, **Missouri Pacific Truck Lines, Inc.** and **Texas & Pacific Motor Transport,** Kansas City, named assistant manager, truck-rail and merchandise sales, Dallas. **G. W. Fijo, Jr.,** assistant sales manager of the trucking subsidiaries, Pittsburgh, replaces Mr. Shields. **Robert A. Griesman,** assistant traffic manager, Houston, advanced to traffic manager-Gulf Region, Houston, to replace **Paul B. Dudek,** promoted to administrative assistant to vice president-traffic, St. Louis. Mr. Griesman's successor is **Edward E. McDaniels,** general agent, Milwaukee, who in turn is replaced by **Charles T. Spencer,** traffic analyst, St. Louis. **Donald S. Blanchard,** assistant traffic manager, truck-rail and merchandise sales, St. Louis, appointed assistant traffic manager, Gulf Region, replacing **A. G. Adams,** resigned. **Rodney R. Rea** succeeds Mr. Blanchard. **Clem P. Dirckx,** traffic manager, truck-rail and merchandise sales for the railroad and vice president-sales for the trucking subsidiaries, St. Louis, pro-

Rehabilitates more track, faster, at less cost.

Undercuts to desired depth and leaves track ready for slow order traffic, or can be used to crib or sled on single or double track. Its own power drives it to and from work and provides hydraulic power to jack up track, insert and remove undertrack equipment, remove undercut material or waste, knock off and reject ties, control cross level and depth of cut, align track and to set itself off on set-off rails provided. Removes ALL old ballast and undercut material without disturbing sub-ballast. Fewer men produce more footage with better results than ordinary methods and equipment.

MANNIX WINCH CART provides power to pull the MANNIX MULTI-PURPOSE MACHINE at work speeds up to 185 fpm. One man operation cuts costs. Travels up to 15 mph.

MEMBER RPI RAILWAY PROGRESS INSTITUTE

For full details of contract, rental or purchase of MANNIX equipment or to arrange a showing of operating films at no obligation write, wire or phone 612, 545-0411.

MANNIX INTERNATIONAL, INC.

9714 10th Ave. No., Minneapolis, Minn. 55427

Circle 11 on reader service coupon

Now...assure your officers and excepted employees

$600–$1500 PER MONTH when disabled ...even for life

...with B.A.R.E. Long-term Disability Protection!

End the worries of both company and employee...when disability is caused by sickness or accident. Let B.A.R.E. provide continuing cash income (dovetailed with R.U.I.A. and R.R.A. plans), lifetime for accident, to age 65 for illness.

B.A.R.E. plans are tailor-made to fit railroaders' needs, and based on our 50-years-plus experience in serving the railroad industry. As a company officer, you'll avoid a lot of headaches by turning your disability problems over to us; if you're ever disabled, you'll be mighty glad your company did!

Get the facts today. You, or your Company officer who handles insurance, should write to

R. E. Johnson—Vice President
B.A.R.E. GROUP DIVISION (RA)
BENEFIT TRUST LIFE INSURANCE COMPANY
A mutual legal reserve company, known for 50 years as
Benefit Association of Railway Employees
1771 Howard Street • Chicago, Illinois 60626

Circle 12 on reader service coupon

moted to the newly created position of traffic manager-Northern Region, with headquarters at Chicago, **Frank R. McVoy,** formerly manager-TOFC sales, **Chicago & Eastern Illinois,** Chicago, replaces Mr. Dirckx. **Thomas A. Holzmann,** special representative, office of vice president-traffic, named assistant to traffic manager, truck-rail and merchandise sales, St. Louis. **Ralph A. Barger,** assistant to the vice president-traffic, promoted to freight traffic manager, to succeed **Clifford C. Hahne,** who has retired after 46 years' service. Mr. Hahne will serve as a consultant in traffic matters. **J. K. Wesley,** assistant director of industrial development, advanced to director of industrial development, St. Louis.

PENN CENTRAL.—**Stuart T. Saunders,** former Pennsylvania chairman, formally elected chairman of the board of the PC on Feb. 1. **Alfred E. Perlman,** former New York Central president, elected president of the new company. **David C. Bevan** named chairman, Finance Committee, the same position he held with the PRR. **Allen J. Greenough,** former PRR president, appointed special consultant to the PC and president of Pennsylvania Terminal Real Estate Co., a New York based subsidiary.

Other appointments (former positions in parentheses): Executive vice presidents—**Walter R. Grant** (vice president—finance, NYC); **Henry W. Large** (vice president—traffic, PRR); and **David E. Smucker** (vice president—operations, PRR). Senior vice presidents—**Guy W. Knight** (PRR vice president—labor relations and personnel); and **Robert W. Minor** (NYC vice president—executive department). The executive and senior vice presidents will report to the president.

Officers reporting to the chairman: Mr. Bevan; **John B. Prizer,** vice president and general counsel (same title, PRR); **William A. Lashley,** vice president—public relations and advertising (same title, PRR); **Basil Cole,** vice president—executive department (PRR assistant vice president—administration); and **Bayard H. Roberts,** secretary (same title, PRR).

Reporting to Mr. Grant: **William S. Cook,** vice president and comptroller (PRR comptroller); **T. K. Warner,** vice president—taxes (PRR director of taxation); and **G. A. Royce,** director—insurance (manager, insurance division, PRR).

Mr. Smucker heads the operating department, with responsibility for safe, efficient and economic operation of the road and integration of physical facilities. Reporting to Mr. Smucker: **John C. Kenefick,** vice president—transportation (vice president—operation, NYC); **G. C. Vaughan,** vice president—engineering and equipment (PRR vice president—transportation and maintenance).

Reporting to Mr. Large: **John G. Patten,** vice president—freight sales (NYC vice president—freight sales); **James R. Sullivan,** vice president—marketing (same title, NYC); **A. Paul Funkhouser,** vice president—coal and ore traffic (same title, PRR).

Reporting to Mr. Bevan: **W. R. Gerstnecker,** vice president—corporate (PRR treasurer); **P. D. Fox,** vice president—administration (PRR assistant vice president—finance); and **Robert Haslett,** vice president—investments (PRR director of investment). **Raymond C. McCron** (treasurer, NYC) named treasurer, reporting to Mr. Gerstnecker.

Reporting to Mr. Minor: **William F. Kirk,** vice president—mail, express and highway services (president, NYC Transport Co.); and **J. E. Chubb,** vice president, Baltimore (same title, PRR).

Reporting to Mr. Knight: **Leo B. Fee,** vice president—employee relations (same title, NYC); **J. J. Maher,** director—labor relations (same title, PRR); and **Samuel W. Seeman,**

director—personnel administration (same title, PRR).

Reporting directly to the president: **R. G. Flannery,** vice president—systems development (same title, NYC); **Malcolm P. Richards,** vice president—purchases and materials (vice president—purchases and stores, NYC); **James J. Wright,** vice president—research (NYC director of technical research); **Samuel H. Hellenbrand,** vice president—industrial development and real estate (vice president—real estate, NYC); **F. L. Kattau,** vice president—management planning and development (assistant vice president—executive department, NYC).

Other key officers: **A. M. Harris,** assistant vice president—transportation (general manager transportation—PRR); **Richard B. Hasselman,** assistant vice president—transportation (assistant vice president—transportation, NYC); **James H. Heron,** assistant vice president—equipment (same title, NYC); **Charles T. Popma,** assistant vice president—engineering (same title, NYC); **A. M. Schofield,** assistant vice president—operations planning (general manager, Eastern Region, PRR); **Edward L. Claypole,** assistant vice president—passenger service (general manager, Western District, NYC); **Robert D. Timpany,** assistant vice president—operating administration (same title, NYC); **C. G. Magruder,** assistant vice president—traffic administration (assistant vice president—traffic, PRR); **C. E. Ingersoll,** assistant vice president—passenger service contracts (same title, PRR); **J. W. Diffenderfer,** assistant vice president—special services (same title, PRR); **C. G. Sempier,** assistant vice president—data systems (manager business systems and information processing, PRR); **J. S. Fair, Jr.,** assistant vice president—purchases (general manager, purchases and material, PRR); **V. J. Floyd,** director—industrial development (general manager—industrial development, PRR); **Otto W. Pongrace,** director—industrial development (same title, NYC); **Frank J. Gasparini,** director—real estate (general real estate manager, NYC); **H. S. Jensen,** director—real estate (director real estate—special projects, PRR); and **A. J. Tuohy,** director—security (same title, NYC).

Executive Committee: **J. M. Symes,** chairman; **Walter H. Annenberg, Howard Butcher III, Fred M. Kirby, Daniel E. Taylor,** Messrs. Perlman and Saunders.

Finance Committee: **Seymour H. Knox,** vice chairman; **Isaac B. Grainger, Edward J. Hanley, Franklin J. Lunding, Richard K. Mellon** and **Carlos J. Routh.**

Pensions Committee: Mr. Grainger, chairman; **William L. Day, Dr. R. Walter Graham, Jr.; James S. Hunt, Thomas L. Perkins, R. Stewart Rauch** and **R. G. Rincliffe.**

Committee on Organization and Officers' Salaries: Mr. Mellon, chairman; Messrs. Kirby, Annenberg, Taylor and Butcher.

SOUTHERN PACIFIC.—R. E. Dipprey, assistant superintendent, Dallas division, named to the newly created position of assistant to general manager for SP Lines in Texas and Louisiana. His headquarters will remain at Houston.

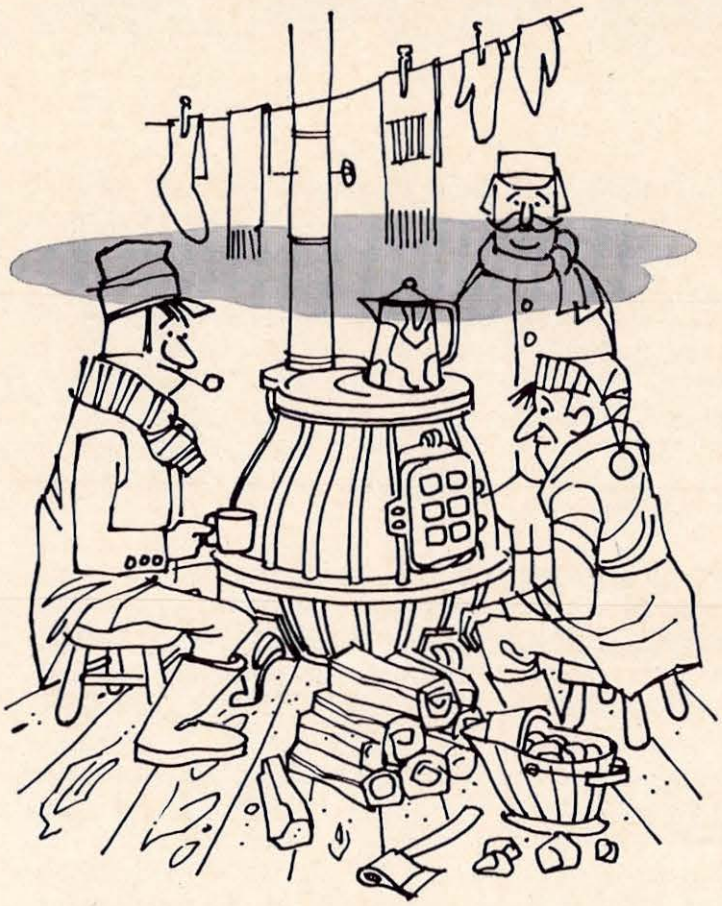
Samuel Mezik named general bridge inspector, San Francisco, succeeding the late **C. A. Hackett.**

WESTERN WEIGHING & INSPECTION BUREAU.—James M. Crowell, manager, Chicago, retired Jan. 31 after 47 years of service.

OBITUARY

Grant E. Syphers, 57, **Interstate Commerce Commissioner,** died Feb. 5 in a San Diego, Calif., hospital, following a heart attack.

Remember when
freight conductors doubled
as firemen
for a pot-bellied stove?



International went to work
on that one, too

Time was when, to keep warm, everybody in the caboose had to belly up to a pot-bellied stove. It required as much stoking as the locomotive and served as a drier, a heater and a cook stove.

International Caboose experts antiquated that deal when, under the heading of progress, things changed to oil and propane gas and now to infra-red heaters that provide even heat from one end of the car to the other.

It's another example of the comfort, the safety and the service built into every International Caboose.

INTERNATIONAL CAR CORP.

835 ENGLEWOOD AVENUE • BUFFALO, N. Y. 14223

MEMBER RPI

A Railroad Subsidiary of Nationwide Industries, Inc.
Other railroad subsidiaries of Nationwide Industries, Inc.
RAMCO/Nationwide Railroad Leasing, Inc.

Circle 18 on reader service coupon

WALTER TAFT

WATCHING WASHINGTON

COST OF NEW PER DIEM PLAN—It will cost the railroads something to comply with the ICC order requiring substitution of a time-mileage basis for the present time-basis per diem for rental of freight cars (RA, Feb. 5, p. 12). Meanwhile, what railroad statisticians call "rough calculations" indicate that the new basis, scheduled to become effective Oct. 1, will cut the average per diem charge. The prospective additional cost of administering the plan is still a matter of conjecture, the Commission's report having cited estimates which ranged from $8,300,000 per year to $1,000,000.

BASES OF ESTIMATES—The $8,300,000 estimate is based on what 14 roads expected their costs to be if the Commission adopted, as it did, the time-mileage approach recommended by Examiner R. C. Bamford. After programming and other one-time costs were met, these estimates listed the largest recurring annual costs as those involved in additional data processing and employment of more traveling auditors and cost-accounting clerks. The $1,000,000 estimate is based on evidence submitted by the Pennsylvania (now in Penn Central), which disputed the 14-road estimates and put its own prospective additional costs at a net of only $79,000.

RENTAL REDUCTION PROSPECT—The new plan's mileage charges will be based on the original cost of per diem cars. They will range from 1.47 cents to 4.6 cents. Time charges will be based on ages as well as original costs of cars. They will range from 63 cents per day to $10.22. So, the top daily charge could be this $10.22 plus 4.6 cents per mile. Present per diem charges include no mileage factor, but vary as to reproduction values of cars—from $2.16 to $12.18 per day. The Commission's use of original costs, instead of reproduction values, is a major factor in the rough calculations which indicate that the average per diem charge may become less than it is now.

DOOR OPEN FOR INDUSTRY PACT—The Commission's decision marked the first time it has prescribed per diem rates. This is an area, like divisions of joint rates, where the railroads have been left unregulated unless their arguments brought Commission intervention. That situation was pointed up by the Commission when it called the involved cases "contractual disputes between carriers where settlements should be encouraged."

Improved products will cut costs, says TTX

Carbuilders are under quite a few pressures from buyers—but few are greater than the pressure to reduce maintenance costs.

Trailer Train offers a good example. TTX has in service or on order more than 43,000 cars—which means that only about 15 Class I railroads have a larger fleet. And TTX Vice President and General Manager John E. Wightman, Jr., recently had a few words to say about maintenance, to an audience made up largely of supply people. Wightman's comment:

"I think the elimination of maintenance is the greatest challenge to the railroad supply industry. More and more, as time goes by, freight cars are becoming more specialized and more expensive. Each day of out-of-service time becomes more and more important—and maintenance costs are skyrocketing.

"I am not discounting the value and worth of the supply industry in supplying new devices for today's requirements. The industry has done well, but with few exceptions I do not think that these new requirements or replacements for older requirements are approached on the basis of providing unlimited service with practically no maintenance.

"Trailer Train's fleet of cars is practically new. Only a few cars are 10 years old—yet our maintenance budget for 1968 is $14.5 million, and if we buy no more cars after 1968, we project a maintenance cost of $30 million on our fleet in 1974. Nowhere in this figure has there been included a thing for loss of revenue while cars are undergoing maintenance. What a field for the supply industry to cultivate.

"I am not naive enough to think that in every case maintenance-free products can be developed which will sell for the same price as other products. But if there is sufficient savings in maintenance, Trailer Train is willing to pay more, within reason, and we are doing so in many cases today."

At present, Trailer Train's cycle for heavy maintenance is seven years, or about 450,000 miles, and each car into the shop runs about $1,800. As Wightman puts it, "If the critical items could be extended for three years, our savings on heavy repairs alone would be

tremendous. Many items of minor repairs are performed by railroads under AAR billing during the seven-year cycle, and just as an example of the magnitude of this part of our maintenance, more than $9 million of our $14.5-million 1968 budget is allocated for AAR billing. All of our maintenance costs are carefully detailed. It's astounding to analyze these costs and realize the savings that could be made with somewhat improved products at critical spots. Nothing on our flat cars is so complicated that research and study aimed at elimination of maintenance is not practical."

As a buyer, and as a practical man, Wightman put it this way to the suppliers: "I know that many of you will say I won't be satisfied until everything on a car will operate satisfactorily with minor adjustments and lubrication for the life of the car. I'm frank to admit this is true.

"But my hope is that improvement can be made in the 5% or 10% category now, and eventually be extended to the full life of the car." ■

LETTERS FROM READERS

Less-carload traffic

Wilton, Mass.

To the Editor:

Prior to my retirement from active Railroad service with the New York Central-B&A Division (March 31, 1963) I was considerably involved in the matter of LCL transportation through my association with the NASAB, being Rail Chairman of its LCL Committee for several years. I was therefore particularly interested in recent issues of Railway Age indicating that the question of LCL transportation is not entirely dead.

I refer specifically to the issue of Nov. 27 last wherein Mr. Culpepper of the Atlanta Freight Bureau again brings up the question as to the possibility of establishing a single agency plan for handling LCL and advocates that the REA be designated as that agency. Of course, this same question has been seriously considered before by the AAR and the NASAB but to no avail.

I was also much interested in the story in the issue of Dec. 18/25 reporting the efforts being made by the Canadian Pacific to promote LCL traffic under the by-line "Successful Merchandising" and in which it is stated, "The backbone of merchandise services is a string of modern, mechanized freight terminals that have been built in key locations." A photo in that article of the CPR's new modern mechanized terminal at Winnipeg certainly demonstrates positive action on their part. We wonder at times why such a type of operation would not succeed (or perhaps I should say did not succeed) on the major U.S. lines.

I was further intrigued by the advertisement of the MoPac, carried in the Dec. 18/25 issue, picturing an elephant's head with the by-line—"We're very big on shipments other railroads call peanuts" and their statement that "if it weighs under 5,000 lbs. with most lines it's 'no go.' With us, it's LCL/LTL a go-go!"

We are well aware of the time and effort spent by the eastern railroads in the past to "rescue" their LCL traffic. Nevertheless common rail carriers are supposed to be in the business of handling ALL FREIGHT and it is still nice to know that for some areas at least, LCL as such is not "dead" but very much "alive."

More power to them! Who knows but perhaps some day we may see a real resurgency in the handling of rail LCL, as we have had and continue to have with respect to the handling of carload traffic.

Carl R. Erlandson

The rights of railroads

Bremerton, Wash.

To the Editor:

All of us are inclined, even those of us railroad oriented and especially the public, to think of the railroads as a huge impersonal machine having an entity of its own. Actually they are, of course, the common stockholders thereof—American citizens and taxpayers, endowed with certain inherent rights granted by the Constitution.

Why should they not, therefore, take to the Supreme Court, if necessary, a suit to test the constitutionality of any state or federal law that deprives them of the use of publicly built facilities to which their taxes have contributed, i.e., the nation's highways, its rivers and airways, on the same terms and conditions granted to other citizens, users of these facilities and engaged as they are in the business of moving people and their goods?

Roger O'Keefe

DIVIDENDS DECLARED

BEECH CREEK.—Guaranteed, 50¢, quarterly, paid Jan. 1, 1968, to holders of record Dec. 15, 1967.

CANADA SOUTHERN.—$1.50, paid Feb. 1, 1968, to holders of record Jan. 15.

need rail?

Foster has stock answers:

ANY WEIGHT
ANY TIE PLATE
ANY JOINT OR ANGLE BAR
ANY SPIKE OR BOLT
ANY FROG OR SWITCH
ANY TURNOUT
ANY CRANE RUNWAY
ANY ACCESSORY
ANY FABRICATION
ANY TRACK TOOL

Faster from Foster!

Foster carries the world's largest stocks of new and relaying rail. We supply and fabricate *everything* you need to build complete industrial trackage. A Foster plus: experience that helps you plan. Call collect.

Seven Parkway Center
Pittsburgh, Pa., 15220
Offices and warehouses in 30 major cities.
Serving industry since 1902.

L. B. FOSTER CO.

Circle 14 on reader service coupon

Richard B. Fairman
Alco

R. M. Ettington
Alco

SUPPLY TRADE

Richard B. Fairman, marketing manager, Locomotive & Engine Products Division, **Alco Products, Inc.,** Schenectady, N.Y., named marketing vice president. **Richard M. Ettington,** division manufacturing manager, appointed manufacturing vice president.

Harold R. O'Connor has been named vice president sales, **Unity Railway Supply Co., Inc.,** with headquarters at Chicago. Mr. O'Connor, who was formerly vice president, **W. K. Davidson & Co. Ltd.,** Montreal, will be responsible for Railroad Product Sales.

John P. Hooning has been appointed sales representative, **United States Railway Equipment Co.,** with headquarters at Chicago.

Richard W. Herbel, district manager, Industrial Battery Division, **Gould-National Batteries, Inc.,** Pittsburgh, has been promoted to regional manager, Pittsburgh sales region, replacing **Ken Rider,** who retired Nov. 30.

Charles W. Arnold has been appointed to a special assignment in the Metal Products Department, **Dow Chemical Co.,** Midland, Mich., to assist **William A. Barnes,** product sales manager for aluminum mill products and the railroad industry. Mr. Arnold will coordinate corporate finance and traffic departments with metals technical service in promoting the sale of units trains using aluminum railroad cars. Mr. Arnold has been corporate manager of purchases for Dow's transportation products and container needs since 1961.

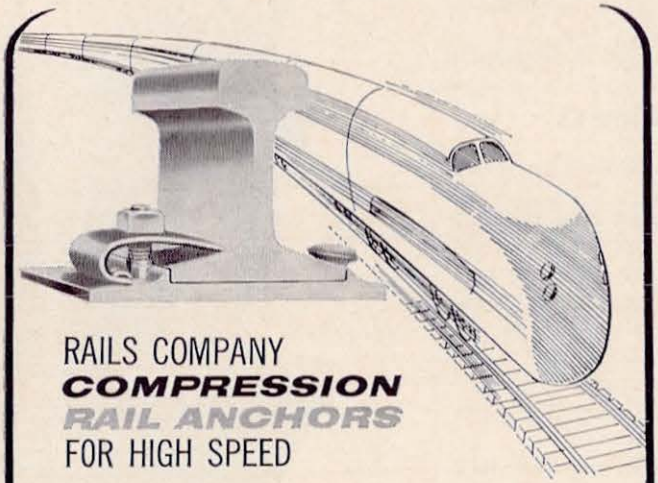
Claude Johnston, Jr., has been appointed project manager, Consulting Division, **McDowell-Wellman Engineering Co.** of Cleveland, Ohio. The company designs and installs bulk material handling facilities for railroads.

Robert N. Post, district sales manager, Railroad Products Group, **Abex Corp.,** at Denver, has been appointed product manager for railroad trackwork at Mahwah, N.J., succeeding **Joseph P. Kleinkort,** who retired Dec. 31, after 44 years service. **Kenneth D. Hughes,** sales representative, New York District, has been named assistant to product manager for railroad trackwork. **J. Robert Loughrey,** project manager for the truck-mounted brake, at Mahwah, has been appointed manager of truck products, Railroad Products Group. **Earl E. Frank,** project engineer, appointed assistant chief engineer for trackwork products, Mahwah.

M. E. Tyler has been promoted to director of international marketing and manufacturing, Reflective Products, **3M Company,** St. Paul, Minn. Mr. Tyler was formerly Reflective Products division national sales manager for local and federal government and railroad and airlines markets.

Richard A. Mather, assistant chief engineer, **Western Railroad Supply Co.,** Division of **Western Industries, Inc.,** Chicago, has been appointed chief engineer, Signal & Communications Division, succeeding **James A. Van Horn,** who retired Dec. 31. Mr. Mather will continue as consultant for the division.

Leonard M. Horner, vice president of the new **Surface Transportation Systems** subdivision of **Sikorsky Aircraft,** division of **United Aircraft Corp.,** Stratford, Conn., has announced the following appointments in the sub-division: **Thomas R. Wheaton,** marketing manager; **Dr. George Sonneman,** engineering manager; **Vernon E. Hupp, Jr.,** service manager; **Alexander Sherman,** programs manager; **Versey McBride,** quality control manager; **Francis R. McElroy,** material control manager, and **Bertram N. Arnold,** manufacturing manager. The new sub-division was formed Dec. 31, 1967, with the discontinuance by United Aircraft of its Corporate Systems Center division, which developed the TurboTrain program (RA, Nov. 27, p. 82). Mr. Wheaton was formerly marketing manager, rail transportation systems; Mr. Sonneman was manager, technical systems engineering; Mr. Hupp was manager of service and support, rail transportation systems; Mr. Sherman was engineering manager, technical systems; and Mr. McBride was senior engineer, quality assurance, assigned to the TurboTrain program, all with the Corporate Systems Center. Messrs. McElroy and Arnold held positions within Sikorsky.



RAILS COMPANY
COMPRESSION
RAIL ANCHORS
FOR HIGH SPEED

- Dependable, two way uniform holding proven in service!
- Anchor in both directions with one Compression Rail Anchor
- Costs less per mile
- Tops for welded rail, turnouts, bridges and crossings — fits all rail sections
- New! — Flexiclip® for concrete ties

Write or call today for descriptive literature

THE RAILS CO.

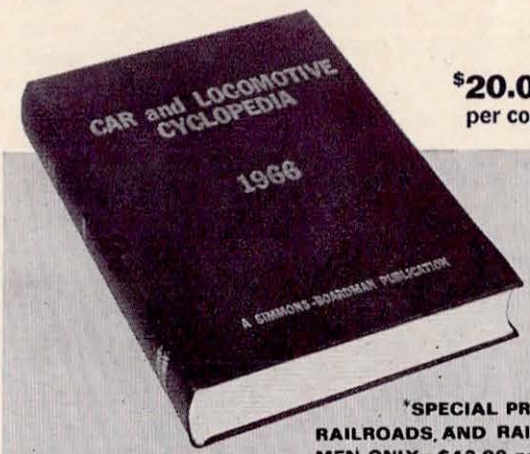
Maplewood, N. J. 07040 • St. Louis, Mo. 63101
Chicago, Ill. 60604 • San Francisco, Calif. 94105
In Canada: The Holden Company, Ltd.

Circle 15 on reader service coupon

For the first time... it's a reference book for

BOTH CARS AND LOCOMOTIVES

1,200 pages of detailed information, drawings and dimensions, includes all pages that would have appeared in the 22nd Edition, Car Builders' Cyclopedia PLUS 250 pages covering specifications and details of locomotives.

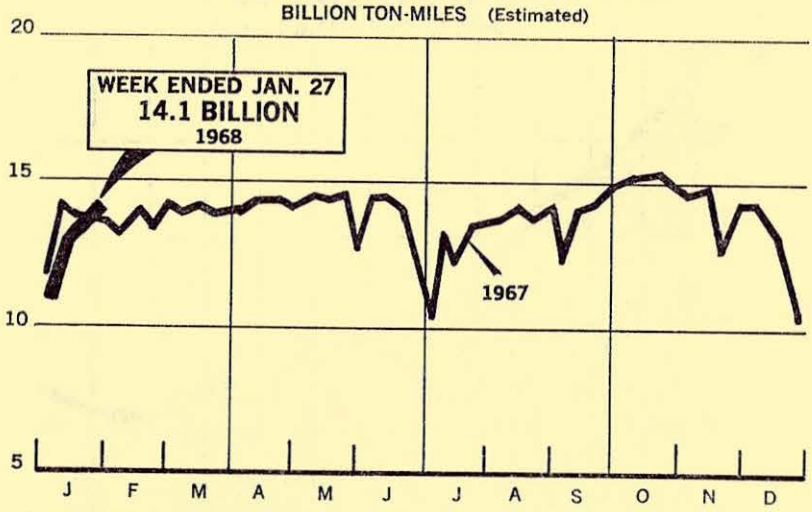


$20.00 per copy*

*SPECIAL PRICE TO RAILROADS AND RAILROAD MEN ONLY—$12.00 per copy.

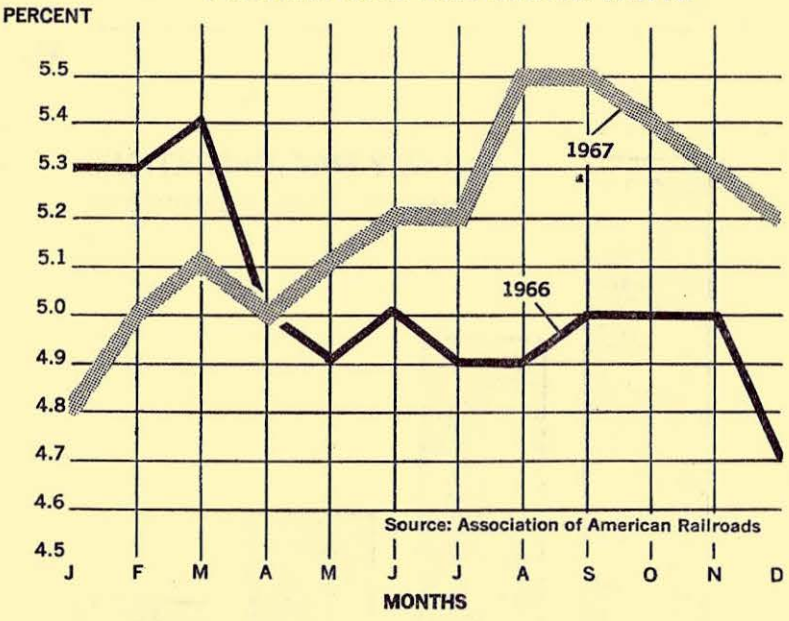
ORDER FROM CYCLOPEDIA DEPT., SIMMONS-BOARDMAN PUBLISHING CORPORATION, 30 CHURCH ST., NEW YORK, N.Y. 10007

RAIL FREIGHT TRAFFIC TRENDS



Source: Association of American Railroads

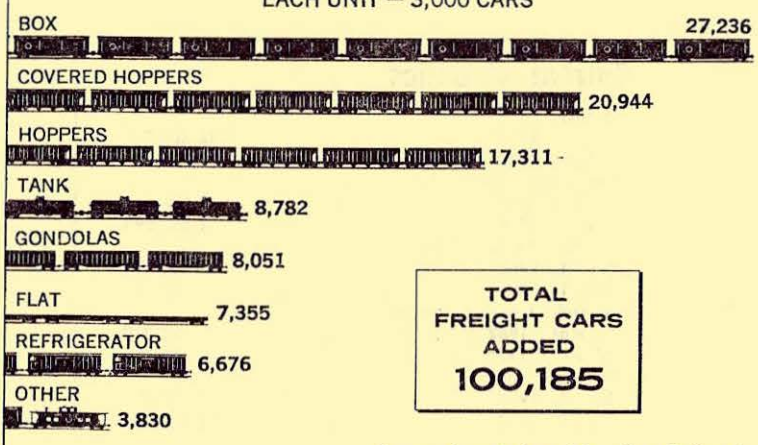
FREIGHT-CAR BAD-ORDER RATIO



Source: Association of American Railroads

NEW CARS ADDED TO FLEET — 1967

EACH UNIT = 3,000 CARS

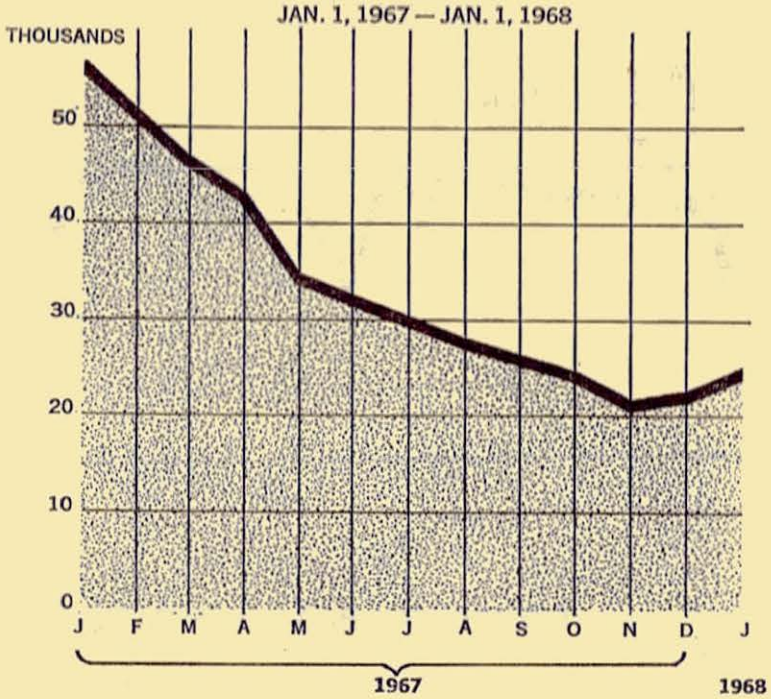


TOTAL FREIGHT CARS ADDED
100,185

Source: Association of American Railroads

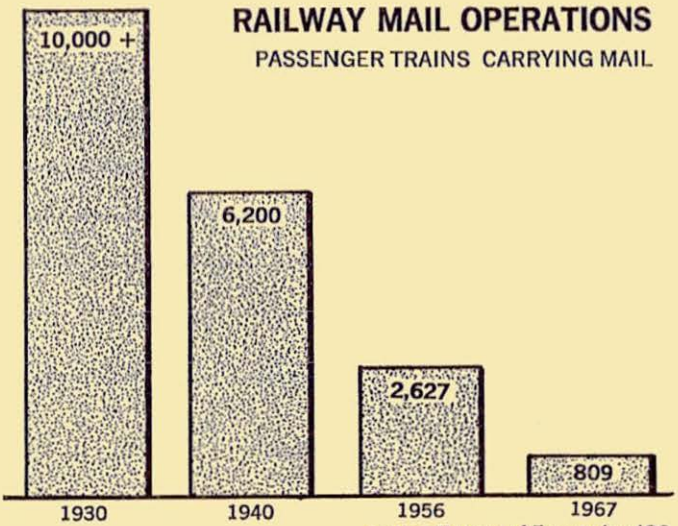
BACKLOG OF NEW CARS ON ORDER & UNDELIVERED

JAN. 1, 1967 — JAN. 1, 1968



RAILWAY MAIL OPERATIONS

PASSENGER TRAINS CARRYING MAIL

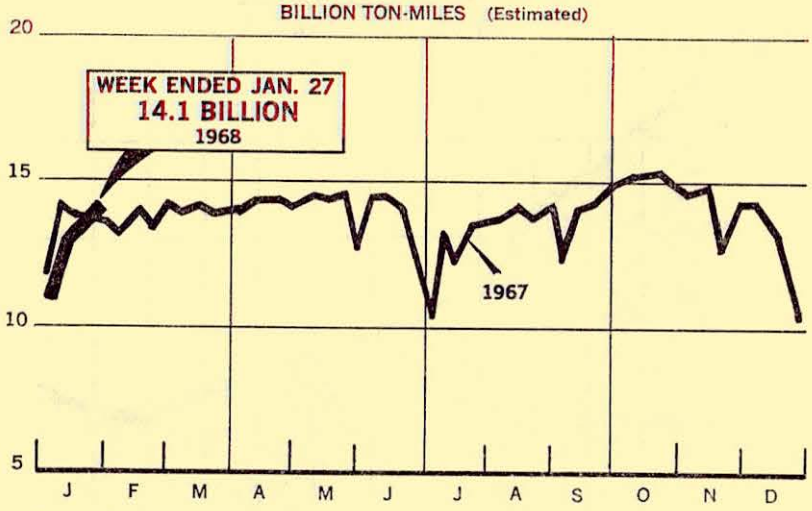


Source. Bureau of Economics, ICC

Current statistics

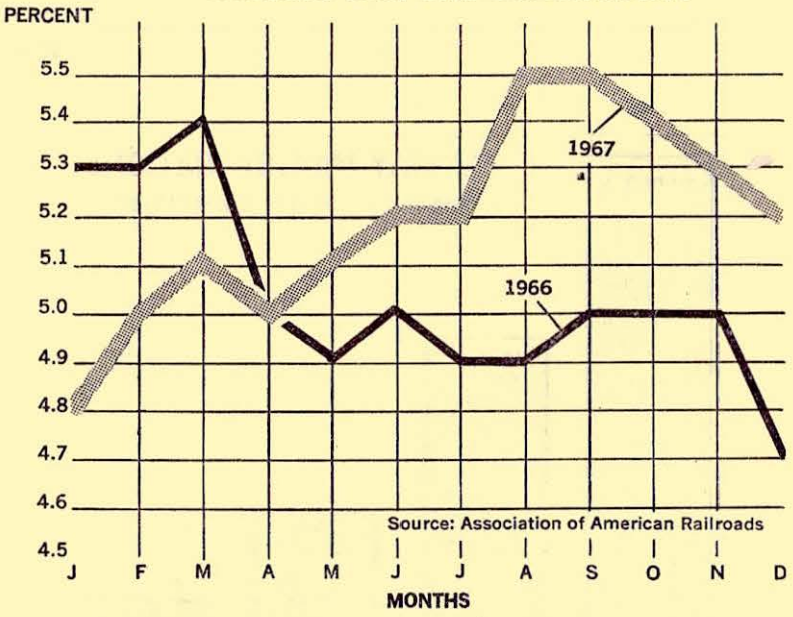
Net Income	
9 mos., 1967	$342,200,000
9 mos., 1966	659,900,000
Carloadings, revenue freight	
5 wks., 1968	2,437,436
5 wks., 1967	2,568,690
New freight cars on order	
Jan. 1, 1968	24,917
Jan. 1, 1967	56,440
New freight cars delivered	
12 mos., 1967	83,099
12 mos., 1966	90,104
Serviceable cars	
Jan. 1, 1968	1,405,832
Jan. 1, 1967	1,425,203

RAIL FREIGHT TRAFFIC TRENDS



Source: Association of American Railroads

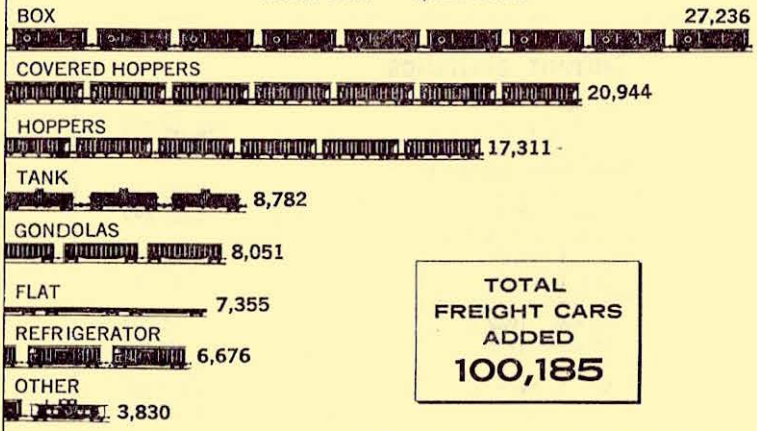
FREIGHT-CAR BAD-ORDER RATIO



Source: Association of American Railroads

NEW CARS ADDED TO FLEET — 1967

EACH UNIT = 3,000 CARS

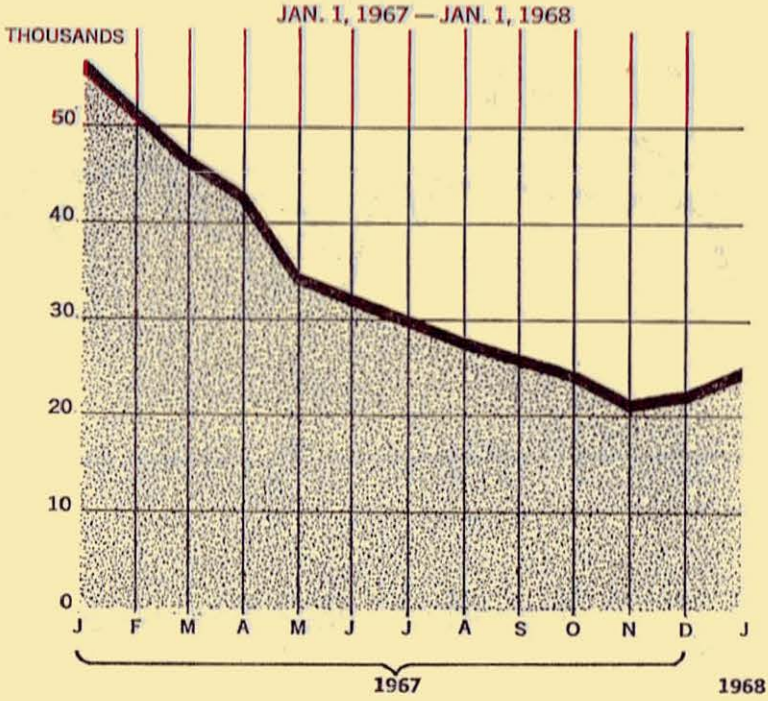


TOTAL FREIGHT CARS ADDED
100,185

Source: Association of American Railroads

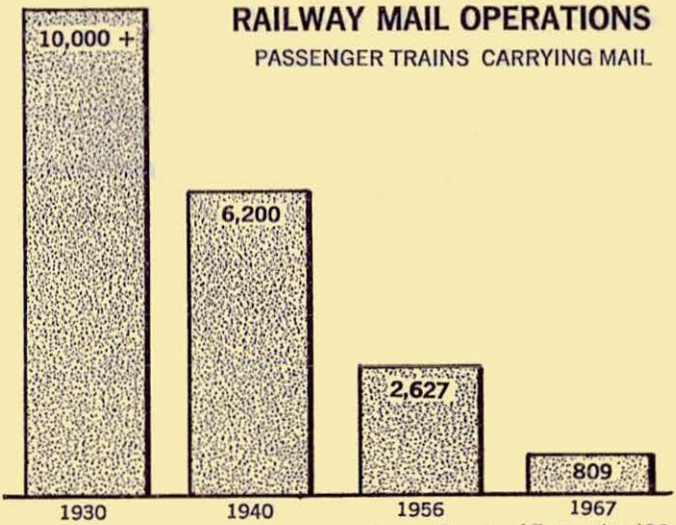
BACKLOG OF NEW CARS ON ORDER & UNDELIVERED

JAN. 1, 1967 — JAN. 1, 1968



RAILWAY MAIL OPERATIONS

PASSENGER TRAINS CARRYING MAIL



Source. Bureau of Economics, ICC

Current statistics

Net Income	
9 mos., 1967	$342,200,000
9 mos., 1966	659,900,000
Carloadings, revenue freight	
5 wks., 1968	2,437,436
5 wks., 1967	2,568,690
New freight cars on order	
Jan. 1, 1968	24,917
Jan. 1, 1967	56,440
New freight cars delivered	
12 mos., 1967	83,099
12 mos., 1966	90,104
Serviceable cars	
Jan. 1, 1968	1,405,832
Jan. 1, 1967	1,425,203

MARKET OUTLOOK

Carloadings

Loadings of revenue freight in the week ended Feb. 3 totaled 502,365 cars, the Association of American Railroads announced on Feb. 8. This was a decrease of 24,410 cars, or 4.6%, compared with the previous week; a decrease of 17,338 cars, or 3.3%, compared with the corresponding week last year; and an increase of 14,748 cars, or 3.0%, compared with the equivalent 1966 week. Ton-miles generated by carloadings in the week ended Feb. 3 are estimated at 13.5 billion, a decrease of 0.9% below the corresponding week of 1967, but an increase of 8.1% above the 1966 week.

REVENUE FREIGHT CARLOADINGS

For the week ended Saturday, Feb. 3 District	1968	1967	1966
Eastern, including Allegheny and Pocahontas ..	187,518	201,977	185,245
Southern	115,166	118,676	99,433
Total Eastern and Southern Districts	302,684	320,653	284,678
Northwestern .	57,018	57,249	60,545
Central Western	104,378	102,425	105,706
Southwestern .	38,285	39,376	36,688
Total Western Districts	199,681	199,050	202,939
Total All Roads	502,365	519,703	487,617
Commodities:			
Grain and Grain Products	48,099	47,696	53,418
Livestock	1,021	1,046	1,357
Coal	85,984	107,343	91,492
Coke	8,347	7,378	7,920
Forest Products	39,605	40,825	35,975
Ore	14,671	17,314	14,984
Merchandise l.c.l.	4,194	5,013	6,283
Miscellaneous .	300,444	293,088	293,088
Feb. 3	502,365	519,703	487,617
Jan. 27	526,775	526,784	513,503
Jan. 20	503,569	528,324	536,387
Jan. 13	487,464	542,304	544,556
Jan. 6	417,263	451,575	508,282
Cumulative total, 5 weeks	2,437,436	2,568,690	2,590,345
Estimated revenue ton-miles (billions) 5 weeks	65.0	66.8	65.9

PIGGYBACK CARLOADINGS.—U. S. piggyback loadings for the week ended Jan. 27 totaled 24,524 cars, carrying 40,615 trailers, compared with 20,714 cars, carrying 33,373 trailers, in the corresponding 1967 week. Loadings for 1968 up to Jan. 27 totaled 88,789 cars, carrying 146,150 trailers, compared with 83,144 cars, carrying 132,722 trailers, in the corresponding period of 1967.

IN CANADA—Carloadings for the seven-day period ended Jan. 14 totaled 58,257 cars, compared with 49,733 for the previous seven-day period, according to the Dominion Bureau of Statistics.

	Revenue Cars Loaded	Total Cars Rec'd from Connections
Totals for Canada		
Jan. 14, 1968.....	58,257	19,878
Jan. 14, 1967.....	73,915	23,943
Cumulative Totals		
Jan. 14, 1968.....	107,990	37,893
Jan. 14, 1967.....	134,097	44,670

FREIGHT TRAIN CARS

• *Reading.*—Ordered 25 100-ton, 50-foot coil cars from Evans Products. They are to be equipped with lift-off covers, Hydra-Cushion underframes and special cross members.

• *Trailer Train.*—Ordered 237 cars as follows: 102 89-ft low-level flats (22 from ACF, 61 from Bethlehem and 19 from Pullman-Standard); and 135 60-ft flats from Pullman-Standard. This brings Trailer Train orders so far this year to 505 cars. The TTX fleet now includes 43,000 cars in service or on order.

NEW FACILITIES

• *National of Mexico.*—Awarded a $350,000 contract to Stromberg-Carlson Corp. for 20 terminals of S-C 765 carrier equipment, 10 F-80 PABX switchboards, and message circuit dialing equipment. The 515-mile communications system will operate from Mexico City to Acambaro and Excobedo and from Acambaro west to Apatzingan.

• *Washington Metropolitan Area Transit Authority.*—Awarded a $1.2-million contract to Gibbs & Hill, Inc., New York consulting engineers, for a study and engineering design of automatic train control and communications systems. WMATA has also approved a $686,000 contract, awarded to Klepper & Kahl, Baltimore consulting engineers, for final design of the "Farragut North" subway station at Connecticut and K St., N.W., and an 1800-ft section of tunnel running northward under Connecticut Avenue from the station to approximately N St., N.W. The 18-month contract also calls for design of an electrical substation for supplying power to trains.

CAR OWNERSHIP

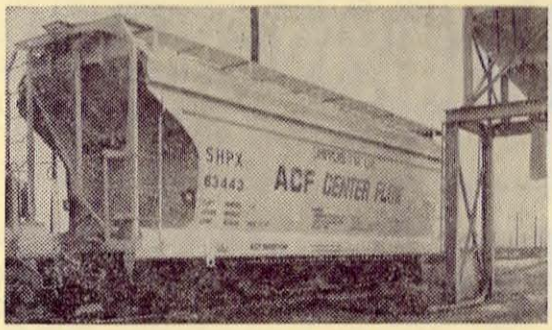
• *Serviceable cars decline.*—Revenue freight cars in serviceable condition owned by Class I railroads on Jan. 1, 1968, totaled 1,405,832, compared with 1,425,203 on Jan. 1, 1967, according to most recent AAR Car Service Division report. Estimated total ownership of all railroad- and privately-owned revenue freight cars on Jan. 1 (see table below) was 1,822,422 (average capacity: 62.85 tons), compared with 1,826,184 (average capacity: 61.19 tons), on Jan. 1, 1967.

ESTIMATED OWNERSHIP—ALL REVENUE FREIGHT CARS
(Jan. 1, 1968 vs. Jan. 1, 1967)

		Box	Covered Hopper	Gondola	Hopper	Flat	Refrig.	All Others	Total
Class I	1968	566,273	118,960	200,096	419,298	66,996	51,705	58,833	1,482,161
	1967	580,652	105,027	207,077	428,970	66,645	49,016	59,192	1,496,579
RRO&C	1968	0	0	0	0	0	51,400	0	51,400
Refrig.*	1967	0	0	0	0	0	53,659	0	53,659
Private	1968	1,461	28,500	295	2,610	43,000	14,865	171,912	262,643
	1967	1,877	24,366	1,084	1,543	35,512	15,246	169,471	249,099
Class II & S&T†	1968	9,224	819	5,306	8,379	648	688	1,154	26,218
	1967	9,072	738	5,561	9,003	755	441	1,227	26,847
GRAND TOTAL	1968	576,958	148,279	205,697	430,287	110,644	118,658	231,899	1,822,422
	1967	591,601	130,131	213,722	439,516	102,912	118,362	229,890	1,826,184

*Railroad owned and controlled refrigerator car lines.
†Class II railroads and switching and terminal companies.

YOU OUGHT TO KNOW



ACF introduces low-pressure-differential car

ACF last week announced the development of a new type of pressure-differential car designed especially for combination rail-highway methods of distribution. Similar in basic design to ACF's Center Flow dry bulk commodities car, the new car uses low-pressure air (5 pounds per square inch) to discharge its cargo into local delivery trucks or into a plant's storage or processing system. This is the second type of pressure-differential car offered by ACF. The first was a 15 psi car that has been used in intermodal cement service. ACF says the new car is lighter in weight and can better accommodate a greater variety of bulk ladings, such as flour and dry chemicals. ACF says the car is being offered "at a substantially lower price than other pressure-differential cars."

General Host wants UP's park subsidiary

General Host Corp. wants to acquire Utah Parks Co., a wholly-owned Union Pacific subsidiary, in exchange for GHC common stock. General Host operates recreation facilities at Yellowstone, in the Everglades, and in the Southwest. Utah Parks operates inns, lodges, restaurants, gas stations and bus tours in Utah and Arizona. The transaction depends on a new concession contract with U. S. National Parks Service satisfactory to GHC.

Midwest Board elects new officers

The new president of Midwest Shippers Advisory Board is J. W. Kachel, traffic manager for Consolidated Papers, Inc., of Wisconsin Rapids, Wis. He succeeds Joh P. Loughnane, corporate traffic manager for Nalco Chemical Co., who becomes chairman of the MSAB executive committee. New first vice-president is C. A. O'Brien, assistant superintendent and traffic manager for Midwest Steel Corp., Portage, Ind., and new second vice-president is J. G. Lane, district traffic manager for Del Monte Corp., Rochelle, Ill.

Texas roads, unions step up safety drive

Texas, the state with the most rail-highway grade crossings, aims to be up there with the leaders in promoting crossing safety. A new committee, including representatives of all roads operating in the state and of the five operating brotherhoods, met recently with officials of the state departments of public safety, highways and education. The objective of the session: To explore possibilities of forming a joint committee of state and industry representatives to add emphasis to the current safety drive.

French Railways place big order for U.S. computers

An order from the French National Railways (SNCF) for two UNIVAC 1108 computer systems, valued at more than $5 million, was disclosed in Philadelphia last week by Sperry Rand's UNIVAC Division. The new equipment will supplement two existing UNIVAC 1108 systems already operating at SNCF's Computer Center at the Auteuil station in Paris. Delivery is scheduled for March. The additional systems will form the focal point of a message switching center for a national communications network designed to improve freight-car utilization.

Truck tonnage rises for the week

Intercity truck tonnage in the week ended Jan. 7 was 2.8% above that of the previous week, and 7.7% above the volume in the corresponding week of 1967, according to American Trucking Associations.

ISSUES FACING LABOR AND MANAGEMENT

(Continued from page 27)

matched with the unions in the area of self-help that there really is no contest. The unions have, in the strike, an almost invincible weapon, and they fully appreciate that this is so."

With conditions being as they are, Hiltz said, "it is practically impossible for railroads to successfully withstand a strike. Thus, if they're allowed to use the strike, the unions could gain almost any end they desire, regardless of the equity of doing so."

His proposal would involve the creation of a continuing machinery for final-and-binding resolution of disputes. Unions, Hiltz noted, are "throwing up their hands in horror about this proposal." But, he said, main arguments against compulsory arbitration—that it would lead to third-party judgment in all cases, and that it would deprive employees of their rights—don't hold up.

On the issue of bargaining, he said, "I submit that if either or both of the parties felt unsure of the soundness or equity of its position—and such is usually the case—it would bargain as strongly as possible in order to prevent its position from being totally destroyed by a judicious ruling from a truly unbiased and knowledgeable board of neutrals."

As for the matter of rights, Hiltz declared that "this much-heralded 'right to strike' is merely a red herring by which the unions are striving to maintain the use of an invincible weapon in order to continue to perpetrate gross inequities upon the public." Certain rights of the individual, he noted tartly, have already been subjugated to the collective rights of unions; union rights have been restricted or denied when they affect the welfare of the community.

"What, then, is so sacred about the right to strike," Hiltz asked, "when the exercise of that right is against equity and contrary to the public interest?"

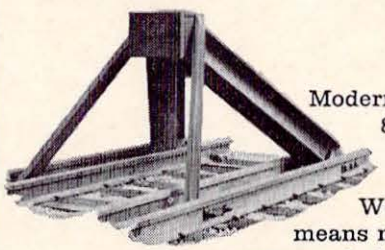
● **Hope springs.** . . . While both Hiltz and Welty called attention to specific problems, there was still an impression that there's hope. Welty summed it up this way, for American University's management group:

"We have the evidence of possible change in union structure. We may well have fewer and stronger unions—and though the new unions may be stronger, they may also be more amenable to working with management more closely—because the cooperative union leader won't be quite so concerned about protecting his rear against the charge from a rival union that he's management's patsy, or worse.

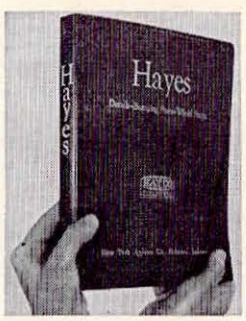
"Management, of course, owes fairness to the employee and to his organization. There can't be much effective motivation, or much encouragement for cooperation, without it. Management also needs better ways of translating its goals to the individual employee. In particular, management needs better ways of explaining how those goals will work to the long-run benefit of both employer and employee. This is a top-drawer challenge, But if we assume the development of a stronger industry generally—and this is a fair assumption—then the translation job should become somewhat less of a problem. Meaningful cooperation may be—will be—possible." ■

SPENO Is Our Name But Our Way of Life Is
BALLAST CLEANING SERVICE and RAIL GRINDING SERVICE
"Just Ask the Railroads That have used us"
FRANK SPENO RAILROAD BALLAST CLEANING Company, Inc.
306 North Cayuga Street, Ithaca, N. Y.
Clark Street, East Syracuse, N. Y.
SPENO INTERNATIONAL, S. A.
20 Parc Chateau Banquet, Geneva, Switzerland
(For Operations Outside the North American Continent)
MEMBER RPI RAILWAY PROGRESS INSTITUTE
THE HOLDEN COMPANY, Limited
614 St. James Street, Montreal, P. Q., Canada
(Sales Representative For Canada)
Circle 16 on reader service coupon

Hayes ALL-STEEL Bumping Posts



Modern as panel track—80% pre-assembled for lowest installed cost. Welded steel design means maximum strength per pound. One of six standard Hayes Types will meet your car-stopping requirements exactly.
Free—leatherette ring-binder catalog of world's most-specified derails, bumping posts and wheel stops (including periodic supplement service). Write on letterhead.



Specialists since 1903 in side track security.
Hayes Track Appliance Co.
RICHMOND, INDIANA 47374
Circle 17 on reader service coupon

Freight and Passenger Car Charts

These charts are very helpful to AAR billing clerks, mechanical engineers, purchasing and stores personnel, car inspectors, write-up men, car foremen, and anyone else who needs a knowledge of car parts and their relation to each other.

The charts include a cutaway diagram of the car and a listing of important parts with arrows showing where each is located. These charts are a part of standard training programs used on a number of major railroads.

$2 each

$10 for any six

If you are not satisfied

YOUR MONEY WILL BE REFUNDED

if you return the charts to us within 30 days

THE RAILWAY EDUCATIONAL BUREAU
1809 CAPITOL AVENUE
OMAHA 2, NEBRASKA

Please send the charts I have checked below. If I am not satisfied I will return the charts within 30 days for a full refund. I enclose a check or money order for $2.00 for each chart or $10.00 for any six charts.

- ☐ Streamlined light weight passenger car (16x25 inches)
- ☐ Covered hopper car (20x30 inches)
- ☐ Box car, AAR standard 40 ft. (23x25 inches)
- ☐ Air conditioned chair car, 1930 design (18x35 inches)
- ☐ Tank Car (22x35 inches)
- ☐ Refrigerator Car, wood sheathed, steel underframe, 1920 design (14x20 inches)

2/12/68

Name _____

Address _____

City _____ State _____

_____ RR _____

Modern ways beat the weeds

(Continued from page 19)

The answer: "We request a guaranteed kill and find the use of contractors more economical for certain areas."

Probing further into the relative use of contractors and railroad equipment and forces, another question brought out that, of 33 railroads replying, 22 said they used a combination of both types of application. Six said they relied entirely on the services of contractors. Five said they used railroad-owned equipment only.

- **How spraying is divided.** Roads that use both contractors' services and their own equipment were asked to state the basis on which the work is divided. Answers to this question make it difficult to generalize. But it is apparent that a considerable number of roads make it a practice to use contractors for spraying main lines, while railroad forces are used to do spray work in yards.

Another group of roads makes it a practice to use contractors' services for spraying main lines, branch lines and major yards, while spot work is done by company forces.

On the other hand, there are large roads on which the spraying of line of road is done by company equipment, with the services of contractors being used only to a limited extent or not at all.

- **More truck spraying.** Compared with five years ago are railroads making greater use of trucks with flanged-wheel attachments for spraying herbicides on track and right of way? Of 31 railroads answering this question, 20 answered in the affirmative. And one of the roads that answered "no" said the use of such trucks was under consideration for its 1968 program.

What are the causes for this trend? Most of those that gave reasons for their greater use of on/off-track spraying units indicated they favored such rigs because of their greater economy and flexibility compared with work trains. It was apparent that the on/off-track units were finding their greatest application in spraying herbicides in yards and on branch lines. A road that uses truck spray units on all branch lines said that their use was resulting in a 50% reduction in cost over work trains and regular spray crews.

- **Follow-up inspections.** What provision, if any, is made for follow-up inspections to determine the effectiveness of weed and brush-spraying programs?

All 33 roads that returned the questionnaire answered this question. Only one of these roads admitted that its provisions for follow-up inspections were considered "poor." All the others included descriptions of the follow-up inspections without indicating whether they were considered adequate.

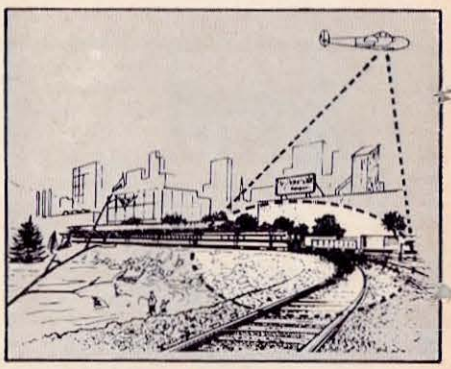
A total of 13 roads merely stated that follow-up visual inspections were made by supervisory officers. In some cases the inspections are apparently made once a year. In others they are made more often.

Another group of roads, only slightly smaller, indicated that at least one inspection was made in the company of a representative of the contractor or the supplier of chemicals.

Explanations follow of inspection practices on two roads that appear to be somewhat more elaborate than the average:

—"Inspection is made by railroad supervision one month after. This is followed by joint inspection at trouble spots by chemical supplier and/or contractor to make future corrections."

—"Photographic records are kept. Also records of areas requiring special attention account of local ordinances. Annual evaluation of results and practices is made by a committee of engineering department personnel." ■



Complete Railroad Mapping Services

- YARD — STATION PLANS
- VALUATION MAPS
- LINE SURVEYS
- APERTURE CARDS
- INDUSTRIAL AREA PHOTOGRAPHY

Write today for details

Mark Hurd
AERIAL SURVEYS, INC.
MAPPING SPECIALISTS SINCE 1922
345 Pennsylvania Avenue
Minneapolis, Minn. 55426
5760 Dawson Avenue
Santa Barbara, Calif. 93017

Circle 18 on reader service coupon

Advertisers' Index

Abex Corporation 4
ACF Industries, Inc., American Car & Foundry Div. 22-23
Benefit Trust Life Insurance Company 32
Bethlehem Steel Corp. 3
Cullen-Friestedt Co. 13
Du Pont de Nemours & Co., Inc., E. I. (Agrichemicals Div.) 6
Ex-Cell-O Corporation 9
Foster Company, L. B. 35
FreightMaster, Division of Halliburtun Services ..... BC
Fruehauf Division, Fruehauf Corporation 10
General Electric Company, Transportation Systems Div. . 24
Hayes Track Appliance Co. 41
Hurd Aerial Surveys, Inc., Mark 42
International Car Corp. 33
Mannix International, Inc. 31
Nordberg Manufacturing Co. ..... IBC
Rails Company, The 36
Railway Educational Bureau, The 42
Railway Maintenance Corporation ..... IFC
Shell Oil Company 21
Speno Railroad Ballast Cleaning Co., Inc., Frank 41
Timken Roller Bearing Company, The—RR Div. 14-15

RAILROAD MEN
GENERAL SUPERVISOR OF TRACK
WANTED NOW

By Bay Area Rapid Transit District in San Francisco

CAREER POSITION — EXCELLENT BENEFITS

If you have 5 or more years experience as a Roadmaster or Track Supervisor and 15-20 years railroad affiliation, airmail a letter today for complete details. All replies will be answered immediately. Write: M. L. Bonnell, Personnel Department.

BAY AREA RAPID TRANSIT DISTRICT
814 Mission Street, San Francisco, California 94103
An Equal Opportunity Employer

FOR SALE

Special Private Train
Beautiful Antique Decor
I.C.C. operating — TV & Intercom
Bar and Player Piano
Complete Sales Trainer
Conference Train
Personnel or Public Relations

M. Schiavone & Sons Inc.
135 Front St., New Haven, Conn. 06513
R. R. Hare — 203-777-2591

How good is your annual report?

We have visual-verbal people with special insights as to why some reports take off, others bump along on the ground. Like to see how they'd score **your** last annual report? Utterly confidential. No obligation. If you liked our ideas, we could help you with your report —or handle the whole job. **Write: Simmons-Boardman Brochure Service, Att'n: George Dusenbury, 30 Church St., New York, N.Y. 10007. Tel. 212/964-3060**

EXCELLENT PROFIT POTENTIAL!
For Railway Equipment Supplier.

An established freight car accessory product is now available for license to a reputable railway equipment supplier. Sales of $1-$3 million annually with excellent profit potential, for a company which has an established railway equipment sales organization. Product is proven in the field, accepted by railroads and shippers, and has strong patent position. Continuous replacement parts business should result in quick cash flow.

Reply to Box 239, Railway Age
30 Church St., New York, N.Y. 10007

Wanted new lines for representations by retiring salesman with contacts in major eastern railroads. Please answer:

Box 240, Railway Age
30 Church St., New York, N.Y.

LONG ESTABLISHED RAILWAY SUPPLY SPECIALISTS seek an additional representation. Present territory between New York-Baltimore-Huntington, W. Va.-Cleveland.

B. E. Wurtmann Co., Inc.
5 5th Ave., Bay Shore, N.Y. 11706

LOCOMOTIVES
FOR SALE OR LEASE

1—44-T G.E. Switcher
1—70-T G. E. Switcher
1—45-T G.E. Switcher
2—100-T 660 HP Alco Switchers
2—100-T 660 HP Baldwin Switchers
15—125-T 1600 HP Baldwin Road Switchers, late model
6—125-T 1600 HP Fairbanks-Morse Rd Switchers, late model

LOCOMOTIVE CRANES FOR SALE

1—40-T Ind Brownhoist, 60 ft boom, excel. cond.
1—25-T Link-Belt, 50 ft boom

Striegel Supply & Equipment Corp.
6001 Chemical Road
Baltimore, Md. 21226

SWINDELL-DRESSLER COMPANY
Founded 1850
A Division of Pullman Incorporated
ENGINEERS
INDUSTRIAL FACILITIES
PUBLIC WORKS
441 Smithfield Street
Pittsburgh, Pa. 15222
Chicago, Ill. Harrisburg, Pa.
Washington, D.C.

Advertising Sales Department

C. J. Fisher, vice president—sales, Chicago

New York, N. Y. 10007,
30 Church St., (212) 964-3060
W. A. Cubbage—regional sales manager
Charles E. Keil—district manager

Chicago, Ill. 60604,
14 E. Jackson Blvd.
(312) 427-3501
K. F. Sheeran—regional vice president;
John M. Brennan—regional sales manager
Peter Hoagland
Ross Mandic
—district managers

Lakewood, Ohio 44107,
12700 Lake Ave., Apt. 1310
(216) 226-8038
Harry H. Melville—vice president

Pittsburgh, Pa. 15219, Room 720,
(412) 471-7871
Frick Building
William M. Champion—regional sales manager
Ronald M. Giallonardo—district manager

Atlanta, Ga. 30309,
22 Eighth St., N. E.,
TRinity 2-6720—J. S. Crane

Dallas, Tex. 75219,
3636 Cedar Springs (#207)
(214) 521-2322
Joseph Sanders

Los Angeles, Cal. 90017,
1313 West Eighth St.
(213) 483-8414
Fred Klaner, Jr.

San Francisco, Cal. 94133,
515 Pacific Ave.
(415) 421-7004
Lewis A. Vogler & Co.

London S. W. 1, England
TRafalgar 6318
67/68 Jermyn St., St. James's
Max F. Holsinger, Peter Clifton, F. E. Mizen

Manchester 22, England
Haletop
Wythenshawe Civic Center
Ian Goulden

Paris, 8e, France
70 Rue de Ponthieu
Stephen Brown-Joussard

4 Düsseldorf-Rath
Eitelstrasse 32
Max F. Holsinger, E. Hillerbrand, Herbert Haibt, Reinhard Schomburg

Tokyo, Japan
Sun Gain Shia, Ltd.
Shiba Nikkatsu Bldg.
13, Shiba Park
Minato-Ku
C. H. Yiu, Managing Director

VIEWPOINT

Weed control is cheap at the price

The $30 million the railroads spend for weed and brush control each year may seem to be an unnecessary expenditure of hard-earned cash to many railroaders. For it is probably true that the average railroad man outside the maintenance-of-way department couldn't care less about the presence of weeds and brush on railroad property. That is, he couldn't care less until he has had a personal confrontation with the consequences. For example:

—A communications department officer finds that tall-growing brush has become entangled with a pole line, causing several wires to break.

—A trainman, walking along the track shoulder at night, finds his feet caught in a tangled clump of weeds, and loses his balance.

—A division superintendent discovers that a freight on a branch line has become stalled because of rails made slippery by crushed weeds on their running surfaces.

—A safety department officer finds that an accident occurred at a grade crossing because tall weeds and brush on the right of way prevented a motorist from seeing an approaching train.

As for railroaders of managerial rank they are made aware in one way or another of such incidents as these. Perhaps as often as otherwise the news comes via the legal department in the form of advice that the railroad is being hailed into court by a trainman for injuries sustained by a fall, or by the dependents of a motorist whose death is attributed to the "negligence" of the railroad.

Neglect can increase your costs

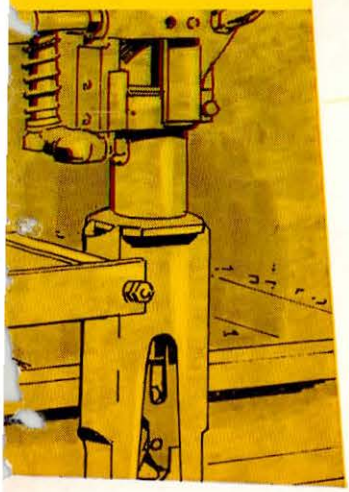
The more experience that management has had with the weed problem the less hasty it is likely to be in slashing the amount recommended for weed control, even in times of business stress. Elimination of the item is unthinkable. Knowledgeable management has been impressed with the fact that the tenacious nature of vegetation must be countered with equally tenacious control measures. Such management has also learned what can happen to expenditures in other areas when vegetation is allowed to get out of hand. It has come to look on the cost of weed control not as an unproductive expenditure but as the price that must be paid to forestall the larger expenditures that would be necessary in the absence of an adequate weed-control program.

The cost of uncontrolled vegetation on railroad property manifests itself in many ways. Some of these, such as the safety hazards presented, are intangible in nature. Others, such as the cost of vegetation growing in the track structure, can involve direct expenditures in the form of increased expenses for track maintenance.

It is an accepted fact that weeds growing in the ballast interfere with drainage and otherwise contribute to the cost of track maintenance. If this line of thought is carried to the most extreme condition that can be visualized—a track structure that is completely overgrown with weeds and grass—the result is a track that is practically impossible to maintain properly at any price.

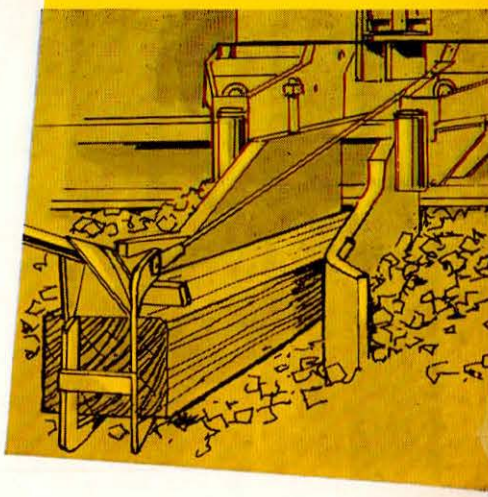
When vegetation control is viewed in this light the conclusion is inescapable that adequate weed control programs should carry a priority rating about as high as that for any other type of work.

1 PULLING OLD SPIKES

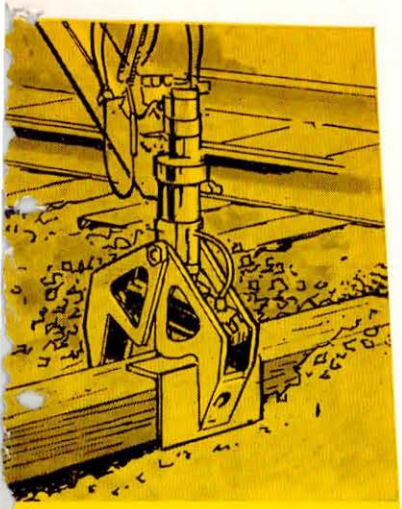


2 CUTTING OLD TIES

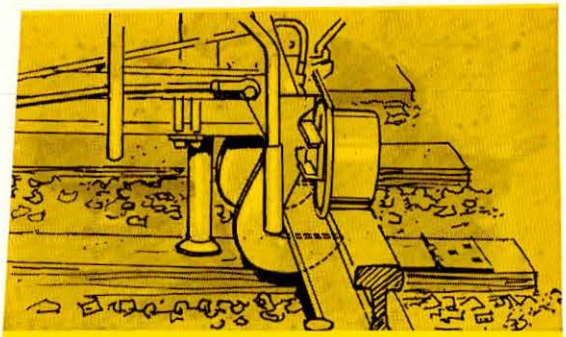
3 SCARIFYING / INSERTING NEW TIES



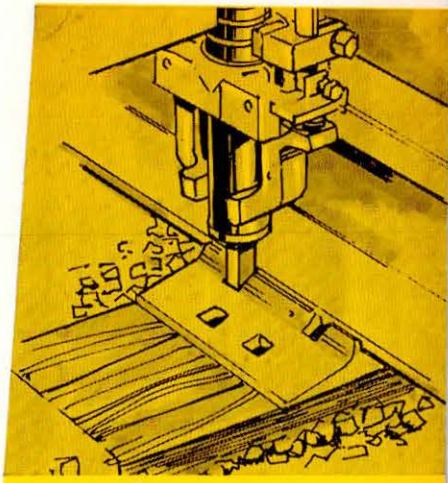
NORDBERG Mechanized TIE GANG saves money on all these Tie Renewal Operations



4 HANDLING OLD & NEW TIES



5 PLACING TIE PLATES



6 DRIVING NEW SPIKES

Mechanization of railway track maintenance work is most efficient when men and machines are *organized* to keep work productivity up and costs down. Good example of *organized mechanization* is the group of six "Mechanical Muscles" that form the Nordberg Tie Gang to expertly handle a wide range of tie renewal jobs for the world's leading railways.

For assistance in finding economical solutions to track maintenance problems, contact Nordberg today.

1 **Nordberg Hydraulic Spike Puller** ... one-man machine that easily pulls spikes on both rails.

2 **Nordberg Tie Axe** . . . cuts and removes unsound ties without disturbing surface or alignment.

3 **Nordberg Scarifier-Inserter** ... scarifies area for inserting new ties level with track.

4 **Nordberg Tie Handler** ... telescoping hydraulic boom places new ties or discards old ties.

5 **Nordberg Plate Placer** ... lifts rail for placing tie plates prior to spiking.

6 **Nordberg Hydra-Spiker** ... smooth, hydraulic pressure pushes spikes in any plate, any hole punching.

NORDBERG MANUFACTURING COMPANY / MILWAUKEE, WISCONSIN 53201

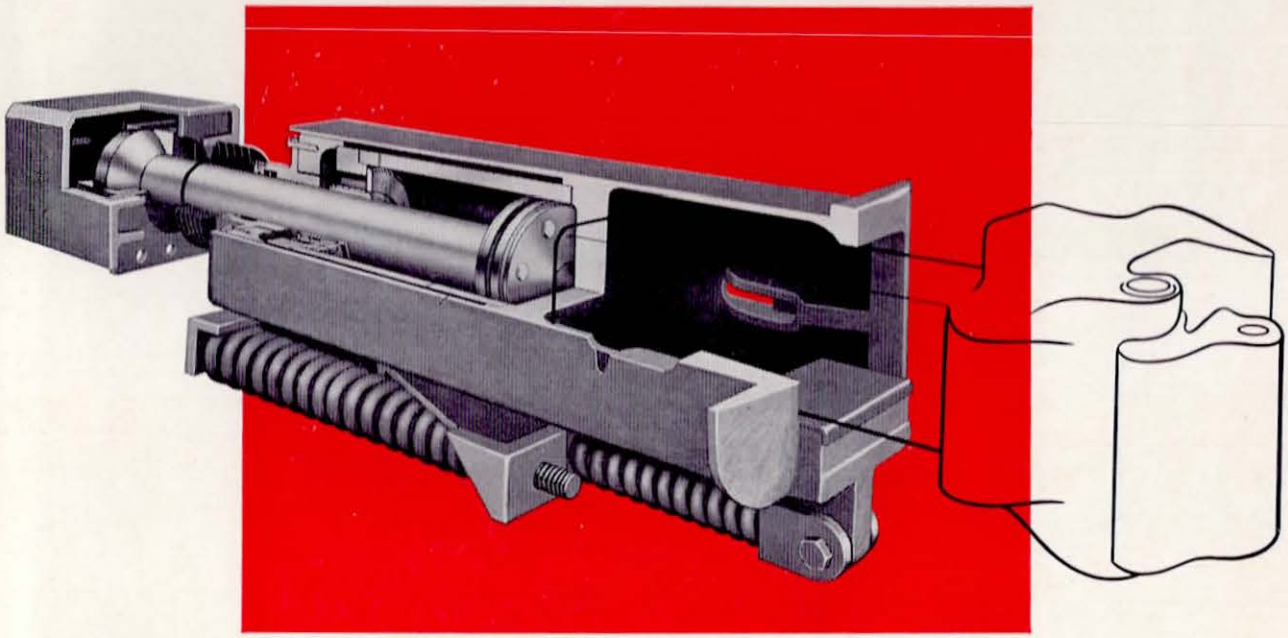
NORDBERG
MECHANICAL MUSCLES

©1968 N.M.CO.

R268

Circle 2 on reader service coupon

FreightMaster's New Concept Type HD Unit– highest capacity performance, retains center filler, yet doesn't add tons of extra weight!



Forget your idea that high capacity cushioning devices must add thousands of dead weight pounds and weaken the car structure. FreightMaster's new Type HD Unit's cushioning performance can match or exceed sliding sill devices without robbing your car of valuable lading capacity.

You keep the structural integrity of the car design with the Type HD Unit, too. The bolster center filler is retained to help you avoid the problems of broken bolsters, cracked center plates and other failures that often plague other designs which eliminate the bolster center filler.

FreightMaster's Type HD Units operate with a full 15″ stroke at each end of the car. Installation is virtually a "slide-in" procedure for both E and F couplers. Over 25,000 cars on 50 railroads are rolling proof that the basic FreightMaster design used on the HD Unit pays off with better protection for both cars and cargo.

Your FreightMaster Sales Engineer has the complete details on the big performance of the Type HD Unit. Or write us. You owe it to yourself and your company to compare the many advanced features that the Type HD Unit offers.

Here's how the Type HD Unit performs under AAR M921-65 conditions

In striking car tests, the Type HD Unit achieved 13 mph at 500,000 lbs coupler force, and in the squeeze test, where over 50% of impacts occur, the 14 mph requirement was attained with only 570,000 lbs coupler force — less than half the maximum allowable 1,250,000 lbs.

FreightMaster®
A DIVISION OF HALLIBURTON SERVICES

NEW CONCEPTS OF INCREASED PROTECTION FOR CARS AND CARGO THROUGH RESEARCH

424 W. Vickery Boulevard • Fort Worth, Texas 76101 • Canada: Hawker Siddeley Canada Ltd., Montreal • Mexico: Materiales y Servicios Ferroviarios, S. A., Marconi Numero 2-37, Mexico 1, D. F.

Circle 4 on reader service coupon